GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: June 7, 2005, 14:31:10 ; Search time 43 Seconds
(without alignments)
253.460 Million cell updates/sec

Title: US-10-049-372-4
Perfect score: 782
Sequence: 1 MKTLFLGVTLGLAAALSFTL.....KLVGPCRCPHVGSPGHLTCR 146

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 513545 seqs, 74649064 residues

Total number of hits satisfying chosen parameters: 513545

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Issued_Patents_AA:*
1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*
2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*
6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	623	79.7	170	3	US-09-130-663-2	Sequence 2, Appli
2	623	79.7	170	3	US-09-432-335-2	Sequence 2, Appli
3	623	79.7	170	3	US-09-614-022-2	Sequence 2, Appli
4	385.5	49.3	173	4	US-09-690-454-78	Sequence 78, Appl
5	321	41.0	66	4	US-09-513-999C-7655	Sequence 7655, Ap
6	274.5	35.1	176	3	US-09-130-663-29	Sequence 29, Appl
7	274.5	35.1	176	3	US-09-432-335-29	Sequence 29, Appl
8	274.5	35.1	176	3	US-09-614-022-29	Sequence 29, Appl
9	244	31.2	174	2	US-08-467-603-2	Sequence 2, Appli
10	244	31.2	174	2	US-08-466-793-2	Sequence 2, Appli
11	244	31.2	174	2	US-08-491-861A-2	Sequence 2, Appli
12	244	31.2	174	4	US-09-374-671A-2	Sequence 2, Appli
13	230	29.4	144	2	US-08-467-603-62	Sequence 62, Appl
14	230	29.4	144	2	US-08-466-793-62	Sequence 62, Appl
15	230	29.4	144	2	US-08-491-861A-62	Sequence 62, Appl
16	230	29.4	144	4	US-09-374-671A-62	Sequence 62, Appl
17	216.5	27.7	145	2	US-08-467-603-61	Sequence 61, Appl
18	216.5	27.7	145	2	US-08-466-793-61	Sequence 61, Appl
19	216.5	27.7	145	2	US-08-491-861A-61	Sequence 61, Appl
20	216.5	27.7	145	4	US-09-374-671A-61	Sequence 61, Appl
21	169	21.6	105	2	US-08-467-603-63	Sequence 63, Appl
22	169	21.6	105	2	US-08-466-793-63	Sequence 63, Appl
23	169	21.6	105	2	US-08-491-861A-63	Sequence 63, Appl
24	169	21.6	105	4	US-09-374-671A-63	Sequence 63, Appl
25	150	19.2	87	4	US-09-690-454-221	Sequence 221, App
26	134	17.1	65	4	US-09-374-671A-105	Sequence 105, App
27	124	15.9	53	4	US-09-374-671A-106	Sequence 106, App
28	122	15.6	183	4	US-09-800-729-202	Sequence 202, App
29	121.5	15.5	184	4	US-09-800-729-203	Sequence 203, App
30	120.5	15.4	184	4	US-09-800-729-204	Sequence 204, App
31	99	12.7	178	1	US-08-825-891-1	Sequence 1, Appli
32	97	12.4	23	4	US-09-690-454-225	Sequence 225, App
33	96	12.3	222	4	US-09-949-016-9658	Sequence 9658, Ap
34	89	11.4	188	3	US-09-130-663-30	Sequence 30, Appl
35	89	11.4	188	3	US-09-332-934-14	Sequence 14, Appl
36	89	11.4	188	3	US-09-432-335-30	Sequence 30, Appl
37	89	11.4	188	3	US-09-614-022-30	Sequence 30, Appl
38	85	10.9	162	4	US-09-919-497-88	Sequence 88, Appl
39	85	10.9	162	4	US-09-949-016-6241	Sequence 6241, Ap
40	78	10.0	490	4	US-09-949-016-10788	Sequence 10788, A
41	78	10.0	543	4	US-09-529-093A-2	Sequence 2, Appli
42	78	10.0	543	4	US-09-529-154-2	Sequence 2, Appli
43	74	9.5	529	4	US-09-589-733C-16	Sequence 16, Appl
44	73	9.3	348	3	US-09-071-709-2	Sequence 2, Appli
45	72.5	9.3	159	3	US-08-992-176-6	Sequence 6, Appli

ALIGNMENTS

RESULT 1
US-09-130-663-2
; Sequence 2, Application US/09130663A
; Patent No. 6020163
; GENERAL INFORMATION:
; APPLICANT: Conklin, Darrell C.
; TITLE OF INVENTION: LIPOCALIN HOMOLOG
; FILE REFERENCE: 97-24
; CURRENT APPLICATION NUMBER: US/09/130,663A
; CURRENT FILING DATE: 1998-08-05
; EARLIER APPLICATION NUMBER: 60/054,867
; EARLIER FILING DATE: 1997-08-06
; NUMBER OF SEQ ID NOS: 30
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
; LENGTH: 170
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-130-663-2

Query Match 79.7%; Score 623; DB 3; Length 170;
Best Local Similarity 91.5%; Pred. No. 6.8e-69;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

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Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130
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119/146 = 81%

RESULT 2
US-09-432-335-2
; Sequence 2, Application US/09432335
; Patent No. 6143720
; GENERAL INFORMATION:
; APPLICANT: Conklin, Darrell C.
; TITLE OF INVENTION: LIPOCALIN HOMOLOG
; FILE REFERENCE: 97-24
; CURRENT APPLICATION NUMBER: US/09/432,335
; CURRENT FILING DATE: 1999-11-02
; EARLIER APPLICATION NUMBER: 09/130,663
; EARLIER FILING DATE: 1998-08-06
; EARLIER APPLICATION NUMBER: 60/054,867

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;  EARLIER FILING DATE: 1997-08-06
;  NUMBER OF SEQ ID NOS: 30
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-432-335-2

  Query Match             79.7%;  Score 623;  DB 3;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 6.8e-69;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||:||||||||:||||||   | |:||||||   |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 3
US-09-614-022-2
; Sequence 2, Application US/09614022
; Patent No. 6365716
; GENERAL INFORMATION:
;  APPLICANT: Conklin, Darrell C.
;  TITLE OF INVENTION: LIPOCALIN HOMOLOG
;  FILE REFERENCE: 97-24
;  CURRENT APPLICATION NUMBER: US/09/614,022
;  CURRENT FILING DATE:  2000-07-11
;  PRIOR APPLICATION NUMBER: 09/130,663
;  PRIOR FILING DATE: 1998-08-06
;  PRIOR APPLICATION NUMBER: 60/054,867
;  PRIOR FILING DATE: 1997-08-06
;  NUMBER OF SEQ ID NOS: 30
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-614-022-2

  Query Match             79.7%;  Score 623;  DB 3;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 6.8e-69;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||:||||||||:||||||   | |:||||||   |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 4
US-09-690-454-78
; Sequence 78, Application US/09690454
; Patent No. 6531447
; GENERAL INFORMATION:
;  APPLICANT: Steven M. Ruben, et al.
;  TITLE OF INVENTION: 32 Human Secreted Proteins
;  FILE REFERENCE: PZ006P1
;  CURRENT APPLICATION NUMBER: US/09/690,454
;  CURRENT FILING DATE:  2000-10-18
;  PRIOR APPLICATION NUMBER: 09/189,144
;  PRIOR FILING DATE: 1998-11-10
;  PRIOR APPLICATION NUMBER: 60/044,039
;  PRIOR FILING DATE: May 30, 1997
;  PRIOR APPLICATION NUMBER: 60/048,093
;  PRIOR FILING DATE: May 30, 1997
;  PRIOR APPLICATION NUMBER: 60/048,190
;  PRIOR FILING DATE: May 30, 1997
;  PRIOR APPLICATION NUMBER: 60/050,935
;  PRIOR FILING DATE: May 30, 1997
;  PRIOR APPLICATION NUMBER: 60/048,101
;  PRIOR FILING DATE: May 30, 1997
;  PRIOR APPLICATION NUMBER: 60/048,356
;  PRIOR FILING DATE: May 30, 1997
;  PRIOR APPLICATION NUMBER: 60/056,250
;  PRIOR FILING DATE: August 29, 1997
;  PRIOR APPLICATION NUMBER: 60/056,296
;  PRIOR FILING DATE: August 29, 1997
;  PRIOR APPLICATION NUMBER: 60/056,293
;  PRIOR FILING DATE: August 29, 1997
;  NUMBER OF SEQ ID NOS: 229
;  SOFTWARE: PatentIn Ver. 2.0
; SEQ ID NO 78
;   LENGTH: 173
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: SITE
;   LOCATION: (18)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (21)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (80)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
;   NAME/KEY: SITE
;   LOCATION: (102)
;   OTHER INFORMATION: Xaa equals any of the naturally occurring L-amino acids
US-09-690-454-78

  Query Match             49.3%;  Score 385.5;  DB 4;  Length 173;
  Best Local Similarity   51.1%;  Pred. No. 1.6e-39;
  Matches   93;  Conservative    7;  Mismatches   33;  Indels   49;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              |||||||||||||||| || |||||||||||||||| |   :  :|||||||||||||
Db          1 MKTLFLGVTLGLAAALSXTLXEEDITGTWYVKAMVVDKTF-RRQEAQKVSPVKVTALGGG 59

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYV--------- 111
              |||||||||||||||||| ||||||||:||         : || :  :
Db         60 KLEATFTFMREDRCIQKKILXRKTEEPGKYSA--------CEPLPHSHPHXPPPPTPVHQ 111

Qy        112 ---------------FYCKDQRRGGLRYMGKLV----------------GPCRCPHVGSP 140
                            |   |||     | ||                ||     :| |
Db        112 PPQVESAQAALLPGPQLCPPPRRGWPLLPGGLVALTSDTGCDRLVRSRDGPDHACPLGGP 171

Qy        141 GH 142
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Db        172 SH 173


RESULT 5
US-09-513-999C-7655
; Sequence 7655, Application US/09513999C
; Patent No. 6783961
; GENERAL INFORMATION:
;  APPLICANT: Dumas Milne Edwards, J.B.
;  APPLICANT:  Duclert, A.
;  APPLICANT:  Giordano, J.Y.
;  TITLE OF INVENTION: Expressed Sequence Tags and Encoded Human Proteins.
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; Patent No. 6783961
;  FILE REFERENCE: 59.US2.REG
;  CURRENT APPLICATION NUMBER: US/09/513,999C
;  CURRENT FILING DATE:  2000-02-24
;  PRIOR APPLICATION NUMBER: US 60/122,487
;  PRIOR FILING DATE: 1999-02-26
;  NUMBER OF SEQ ID NOS: 36681
;  SOFTWARE: Patent.pm
; SEQ ID NO 7655
;   LENGTH: 66
;   TYPE: PRT
;   ORGANISM: Homo sapiens
;   FEATURE:
;   NAME/KEY: UNSURE
;   LOCATION: 54
;   OTHER INFORMATION: Xaa=His or Pro
US-09-513-999C-7655

  Query Match             41.0%;  Score 321;  DB 4;  Length 66;
  Best Local Similarity   93.9%;  Pred. No. 4.2e-32;
  Matches   62;  Conservative    2;  Mismatches    2;  Indels    0;  Gaps    0;

Qy         34 MVVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAY 93
              ||||||||||||||||||||||||||| |||||||||||||||||||||||| ||:|||
Db          1 MVVDKDFPEDRRPRKVSPVKVTALGGGKLEATFTFMREDRCIQKKILMRKTEEXGKYSAY 60

Qy         94 GGRKLI 99
              |||||:
Db         61 GGRKLM 66


RESULT 6
US-09-130-663-29
; Sequence 29, Application US/09130663A
; Patent No. 6020163
; GENERAL INFORMATION:
;  APPLICANT: Conklin, Darrell C.
;  TITLE OF INVENTION: LIPOCALIN HOMOLOG
;  FILE REFERENCE: 97-24
;  CURRENT APPLICATION NUMBER: US/09/130,663A
;  CURRENT FILING DATE: 1998-08-05
;  EARLIER APPLICATION NUMBER: 60/054,867
;  EARLIER FILING DATE: 1997-08-06
;  NUMBER OF SEQ ID NOS: 30
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 29
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-130-663-29

  Query Match             35.1%;  Score 274.5;  DB 3;  Length 176;
  Best Local Similarity   42.3%;  Pred. No. 8.8e-26;
  Matches   58;  Conservative   27;  Mismatches   41;  Indels   11;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALS----FTLEEE--DITGTWYVKAMVVDKDFPEDRRPRKVSPVKV 54
              || | | |:||| |||         :||  |::||||:||| ||::|||      |:|: :
Db          1 MKPLLLAVSLGLIAALQAHHLLASDEEIQDVSGTWYLKAMTVDREFPE-MNLESVTPMTL 59

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
              | | ||||||  | :   || : | :: ||:||||::| ||: : |:      | |:|||
Db         60 TTLEGGNLEAKVTMLISGRCQEVKAVLEKTDEPGKYTADGGKHVAYIIRSHVKDHYIFYC 119

Qy        115 KDQRRG----GLRYMGK 127
              : :  |    |:: :|:
Db        120 EGELHGKPVRGVKLVGR 136


RESULT 7
US-09-432-335-29
; Sequence 29, Application US/09432335
; Patent No. 6143720
; GENERAL INFORMATION:
;  APPLICANT: Conklin, Darrell C.
;  TITLE OF INVENTION: LIPOCALIN HOMOLOG
;  FILE REFERENCE: 97-24
;  CURRENT APPLICATION NUMBER: US/09/432,335
;  CURRENT FILING DATE: 1999-11-02
;  EARLIER APPLICATION NUMBER: 09/130,663
;  EARLIER FILING DATE: 1998-08-06
;  EARLIER APPLICATION NUMBER: 60/054,867
;  EARLIER FILING DATE: 1997-08-06
;  NUMBER OF SEQ ID NOS: 30
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 29
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-432-335-29

  Query Match             35.1%;  Score 274.5;  DB 3;  Length 176;
  Best Local Similarity   42.3%;  Pred. No. 8.8e-26;
  Matches   58;  Conservative   27;  Mismatches   41;  Indels   11;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALS----FTLEEE--DITGTWYVKAMVVDKDFPEDRRPRKVSPVKV 54
              || | | |:||| |||         :||  |::||||:||| ||::|||      |:|: :
Db          1 MKPLLLAVSLGLIAALQAHHLLASDEEIQDVSGTWYLKAMTVDREFPE-MNLESVTPMTL 59

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
              | | ||||||  | :   || : | :: ||:||||::| ||: : |:      | |:|||
Db         60 TTLEGGNLEAKVTMLISGRCQEVKAVLEKTDEPGKYTADGGKHVAYIIRSHVKDHYIFYC 119

Qy        115 KDQRRG----GLRYMGK 127
              : :  |    |:: :|:
Db        120 EGELHGKPVRGVKLVGR 136


RESULT 8
US-09-614-022-29
; Sequence 29, Application US/09614022
; Patent No. 6365716
; GENERAL INFORMATION:
;  APPLICANT: Conklin, Darrell C.
;  TITLE OF INVENTION: LIPOCALIN HOMOLOG
;  FILE REFERENCE: 97-24
;  CURRENT APPLICATION NUMBER: US/09/614,022
;  CURRENT FILING DATE:  2000-07-11
;  PRIOR APPLICATION NUMBER: 09/130,663
;  PRIOR FILING DATE: 1998-08-06
;  PRIOR APPLICATION NUMBER: 60/054,867
;  PRIOR FILING DATE: 1997-08-06
;  NUMBER OF SEQ ID NOS: 30
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 29
;   LENGTH: 176
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-614-022-29

  Query Match             35.1%;  Score 274.5;  DB 3;  Length 176;
  Best Local Similarity   42.3%;  Pred. No. 8.8e-26;
  Matches   58;  Conservative   27;  Mismatches   41;  Indels   11;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALS----FTLEEE--DITGTWYVKAMVVDKDFPEDRRPRKVSPVKV 54
              || | | |:||| |||         :||  |::||||:||| ||::|||      |:|: :
Db          1 MKPLLLAVSLGLIAALQAHHLLASDEEIQDVSGTWYLKAMTVDREFPE-MNLESVTPMTL 59

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
              | | ||||||  | :   || : | :: ||:||||::| ||: : |:      | |:|||
Db         60 TTLEGGNLEAKVTMLISGRCQEVKAVLEKTDEPGKYTADGGKHVAYIIRSHVKDHYIFYC 119

Qy        115 KDQRRG----GLRYMGK 127
              : :  |    |:: :|:
Db        120 EGELHGKPVRGVKLVGR 136
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RESULT 9
US-08-467-603-2
; Sequence 2, Application US/08467603
; Patent No. 5843672
;  GENERAL INFORMATION:
;    APPLICANT:  Morgenstern, Jay P.
;    APPLICANT:  Kanieczny, Andrzey
;    APPLICANT:  Bizindaukas, Christine B.
;    APPLICANT:  Brauer, Andrew W.
;    TITLE OF INVENTION:  Allergenic Proteins and
;    TITLE OF INVENTION:  Peptides from Dog
;    TITLE OF INVENTION:  Dander and Uses Therefor
;    NUMBER OF SEQUENCES:  104
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 State Street, suite 510
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII-text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/467,603
;      FILING DATE:
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/156,549
;      FILING DATE:
;      APPLICATION NUMBER:  07/999,712
;      FILING DATE:  31-Dec-92
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mandragouras, Amy E.
;      REGISTRATION NUMBER:  36,207
;      REFERENCE/DOCKET NUMBER:  IMI-026CP(IPC-048CP)
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 227-5941
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  174 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-467-603-2

  Query Match             31.2%;  Score 244;  DB 2;  Length 174;
  Best Local Similarity   35.7%;  Pred. No. 5.1e-22;
  Matches   50;  Conservative   29;  Mismatches   45;  Indels   16;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEEED----------ITGTWYVKAMVVDKDFPEDRRPRKVS 50
              |||| | :   | |     |: :|          ::| ||:|||  |:: ||  :|  |:
Db          1 MKTLLLTIGFSLIA----ILQAQDTPALGKDTVAVSGKWYLKAMTADQEVPE--KPDSVT 54

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDY 110
              |: : |  ||||||  | :   :|    ::: || ||||::|| |::::::|  |  | |
Db         55 PMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEPGKYTAYEGQRVVFIQPSPVRDHY 114

Qy        111 VFYCKDQRRGGLRYMGKLVG 130
              : ||: :  |    | ||:|
Db        115 ILYCEGELHGRQIRMAKLLG 134


RESULT 10
US-08-466-793-2
; Sequence 2, Application US/08466793
; Patent No. 5891716
;  GENERAL INFORMATION:
;    APPLICANT:  Morgenstern, Jay P.
;    APPLICANT:  Kanieczny, Andrzey
;    APPLICANT:  Bizindaukas, Christine B.
;    APPLICANT:  Brauer, Andrew W.
;    TITLE OF INVENTION:  Allergenic Proteins and
;    TITLE OF INVENTION:  Peptides from Dog
;    TITLE OF INVENTION:  Dander and Uses Therefor
;    NUMBER OF SEQUENCES:  104
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 State Street, suite 510
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII-text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/466,793
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/156,549
;      FILING DATE:  22-NOV-1993
;      APPLICATION NUMBER:  07/999,712
;      FILING DATE:  31-Dec-92
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mandragouras, Amy E.
;      REGISTRATION NUMBER:  36,207
;      REFERENCE/DOCKET NUMBER:  IMI-026CP(IPC-048CP)
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 227-5941
;  INFORMATION FOR SEQ ID NO:  2:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  174 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  protein
US-08-466-793-2

  Query Match             31.2%;  Score 244;  DB 2;  Length 174;
  Best Local Similarity   35.7%;  Pred. No. 5.1e-22;
  Matches   50;  Conservative   29;  Mismatches   45;  Indels   16;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEEED----------ITGTWYVKAMVVDKDFPEDRRPRKVS 50
              |||| | :   | |     |: :|          ::| ||:|||  |:: ||  :|  |:
Db          1 MKTLLLTIGFSLIA----ILQAQDTPALGKDTVAVSGKWYLKAMTADQEVPE--KPDSVT 54

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDY 110
              |: : |  ||||||  | :   :|    ::: || ||||::|| |::::::|  |  | |
Db         55 PMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEPGKYTAYEGQRVVFIQPSPVRDHY 114

Qy        111 VFYCKDQRRGGLRYMGKLVG 130
              : ||: :  |    | ||:|
Db        115 ILYCEGELHGRQIRMAKLLG 134


RESULT 11
US-08-491-861A-2
; Sequence 2, Application US/08491861A
; Patent No. 5939283
;  GENERAL INFORMATION:
;    APPLICANT:  Morgenstern, Jay P.
;    APPLICANT:  Kanieczny, Andrzey
;    APPLICANT:  Bizindaukas, Christine B.
;    APPLICANT:  Brauer, Andrew W.
;    TITLE OF INVENTION:  Allergenic Proteins and Peptides from Dog
;    TITLE OF INVENTION:  Dander and Uses Therefor
;    NUMBER OF SEQUENCES:  104
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD, LLP
```

```
;       STREET:  28 State Street
;       CITY:  Boston
;       STATE:  MA
;       COUNTRY:  USA
;       ZIP:  02109
;     COMPUTER READABLE FORM:
;       MEDIUM TYPE:  Floppy disk
;       COMPUTER:  IBM PC compatible
;       OPERATING SYSTEM:  PC-DOS/MS-DOS
;       SOFTWARE:  ASCII-text
;     CURRENT APPLICATION DATA:
;       APPLICATION NUMBER:  US/08/491,861A
;       FILING DATE:  27-OCT-1995
;       CLASSIFICATION:  435
;     PRIOR APPLICATION DATA:
;       APPLICATION NUMBER:  07/999,712
;       FILING DATE:  31-Dec-92
;     ATTORNEY/AGENT INFORMATION:
;       NAME:  Mandragouras, Amy E.
;       REGISTRATION NUMBER:  36,207
;       REFERENCE/DOCKET NUMBER:  IMI-026CP(IPC-048CP)
;     TELECOMMUNICATION INFORMATION:
;       TELEPHONE:  (617) 227-7400
;       TELEFAX:  (617) 742-4214
;   INFORMATION FOR SEQ ID NO:  2:
;     SEQUENCE CHARACTERISTICS:
;       LENGTH:  174 amino acids
;       TYPE:  amino acid
;       TOPOLOGY:  linear
;     MOLECULE TYPE:  protein
US-08-491-861A-2

  Query Match             31.2%;  Score 244;  DB 2;  Length 174;
  Best Local Similarity   35.7%;  Pred. No. 5.1e-22;
  Matches   50;  Conservative   29;  Mismatches   45;  Indels   16;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEEED----------ITGTWYVKAMVVDKDFPEDRRPRKVS 50
              |||| | :   | |     |: :|          ::| ||:||| |:: || :| |:
Db          1 MKTLLLTIGFSLIA----ILQAQDTPALGKDTVAVSGKWYLKAMTADQEVPE--KPDSVT 54

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDY 110
              |: : |  ||||||  | :   :|    ::: || ||||::|| |:::::|  |  | |
Db         55 PMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEPGKYTAYEGQRVVFIQPSPVRDHY 114

Qy        111 VFYCKDQRRGGLRYMGKLVG 130
              : ||: :  |    | ||:|
Db        115 ILYCEGELHGRQIRMAKLLG 134


RESULT 12
US-09-374-671A-2
; Sequence 2, Application US/09374671A
; Patent No. 6489118
;  GENERAL INFORMATION:
;       APPLICANT: Morgenstern, Jay P.
;                  Konieczny, Andrzej
;                  Bizindaukas, Christine B.
;                  Brauer, Andrew W.
;       TITLE OF INVENTION: Allergenic Protein and Peptides from Dog
;                           Dander and Uses Therefor
;       NUMBER OF SEQUENCES: 109
;       CORRESPONDENCE ADDRESS:
;            ADDRESSEE: Amy E. Mandragouras
;            STREET: 28 State Street
;            CITY: Boston
;            STATE: MA
;            COUNTRY: USA
;            ZIP: 02109
;       COMPUTER READABLE FORM:
;            MEDIUM TYPE: Floppy disk
;            COMPUTER: IBM PC compatible
;            OPERATING SYSTEM: PC-DOS/MS-DOS
;            SOFTWARE: ASCII Text
;       CURRENT APPLICATION DATA:
;            APPLICATION NUMBER: US/09/374,671A
;            FILING DATE: 16-Aug-1999
;       PRIOR APPLICATION DATA:
;            APPLICATION NUMBER: US 08/156,549
;            FILING DATE: 1993-NOV-22
;            APPLICATION NUMBER: US 07/999,712
;            FILING DATE: 1992-DEC-31
;       ATTORNEY/AGENT INFORMATION:
;            NAME: DiGiorgio, Jeanne M.
;            REGISTRATION NUMBER: 41,710
;            REFERENCE/DOCKET NUMBER: IMI-026C2CNCPA
;       TELECOMMUNICATION INFORMATION:
;            TELEPHONE: (617) 227-7400
;            TELEFAX: (617) 742-4214
;  INFORMATION FOR SEQ ID NO: 2:
;       SEQUENCE CHARACTERISTICS:
;            LENGTH: 174 amino acids
;            TYPE: amino acid
;            TOPOLOGY: linear
;       MOLECULE TYPE: protein
;       SEQUENCE DESCRIPTION: SEQ ID NO: 2:
US-09-374-671A-2

  Query Match             31.2%;  Score 244;  DB 4;  Length 174;
  Best Local Similarity   35.7%;  Pred. No. 5.1e-22;
  Matches   50;  Conservative   29;  Mismatches   45;  Indels   16;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEEED----------ITGTWYVKAMVVDKDFPEDRRPRKVS 50
              |||| | :   | |     |: :|          ::| ||:||| |:: || :| |:
Db          1 MKTLLLTIGFSLIA----ILQAQDTPALGKDTVAVSGKWYLKAMTADQEVPE--KPDSVT 54

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDY 110
              |: : |  ||||||  | :   :|    ::: || ||||::|| |:::::|  |  | |
Db         55 PMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEPGKYTAYEGQRVVFIQPSPVRDHY 114

Qy        111 VFYCKDQRRGGLRYMGKLVG 130
              : ||: :  |    | ||:|
Db        115 ILYCEGELHGRQIRMAKLLG 134


RESULT 13
US-08-467-603-62
; Sequence 62, Application US/08467603
; Patent No. 5843672
;  GENERAL INFORMATION:
;    APPLICANT:  Morgenstern, Jay P.
;    APPLICANT:  Kanieczny, Andrzey
;    APPLICANT:  Bizindaukas, Christine B.
;    APPLICANT:  Brauer, Andrew W.
;    TITLE OF INVENTION:  Allergenic Proteins and
;    TITLE OF INVENTION:  Peptides from Dog
;    TITLE OF INVENTION:  Dander and Uses Therefor
;    NUMBER OF SEQUENCES:  104
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 State Street, suite 510
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII-text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/467,603
;      FILING DATE:
;      CLASSIFICATION:  514
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/156,549
;      FILING DATE:
```

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;      APPLICATION NUMBER:  07/999,712
;      FILING DATE:  31-Dec-92
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mandragouras, Amy E.
;      REGISTRATION NUMBER:  36,207
;      REFERENCE/DOCKET NUMBER:  IMI-026CP(IPC-048CP)
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 227-5941
;  INFORMATION FOR SEQ ID NO:  62:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  144 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FRAGMENT TYPE:  internal
US-08-467-603-62

  Query Match             29.4%;  Score 230;  DB 2;  Length 144;
  Best Local Similarity   38.7%;  Pred. No. 2.1e-20;
  Matches   41;  Conservative   26;  Mismatches   37;  Indels    2;  Gaps    1;

Qy         25 ITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDRCIQKKILMRKT 84
              ::| ||:||| |:: || :| |:|: : | |||||| | :  :|    ::: ||
Db          5 VSGKWYLKAMTADQEVPE--KPDSVTPMILKAQKGGNLEAKITMLTNGQCQNITVVLHKT 62

Qy         85 EEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRGGLRYMGKLVG 130
                ||||::|| |::::::|  |  | |: ||: : |    | ||:|
Db         63 SEPGKYTAYEGQRVVFIQPSPVRDHYILYCEGELHGRQIRMAKLLG 108


RESULT 14
US-08-466-793-62
; Sequence 62, Application US/08466793
; Patent No. 5891716
; GENERAL INFORMATION:
;    APPLICANT:  Morgenstern, Jay P.
;    APPLICANT:  Kanieczny, Andrzey
;    APPLICANT:  Bizindaukas, Christine B.
;    APPLICANT:  Brauer, Andrew W.
;    TITLE OF INVENTION:  Allergenic Proteins and
;    TITLE OF INVENTION:  Peptides from Dog
;    TITLE OF INVENTION:  Dander and Uses Therefor
;    NUMBER OF SEQUENCES:  104
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD
;      STREET:  60 State Street, suite 510
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII-text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/466,793
;      FILING DATE:  06-JUN-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  US 08/156,549
;      FILING DATE:  22-NOV-1993
;      APPLICATION NUMBER:  07/999,712
;      FILING DATE:  31-Dec-92
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mandragouras, Amy E.
;      REGISTRATION NUMBER:  36,207
;      REFERENCE/DOCKET NUMBER:  IMI-026CP(IPC-048CP)
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 227-5941
;  INFORMATION FOR SEQ ID NO:  62:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  144 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FRAGMENT TYPE:  internal
US-08-466-793-62

  Query Match             29.4%;  Score 230;  DB 2;  Length 144;
  Best Local Similarity   38.7%;  Pred. No. 2.1e-20;
  Matches   41;  Conservative   26;  Mismatches   37;  Indels    2;  Gaps    1;

Qy         25 ITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDRCIQKKILMRKT 84
              ::| ||:||| |:: || :| |:|: : | |||||| | :  :|    ::: ||
Db          5 VSGKWYLKAMTADQEVPE--KPDSVTPMILKAQKGGNLEAKITMLTNGQCQNITVVLHKT 62

Qy         85 EEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRGGLRYMGKLVG 130
                ||||::|| |::::::|  |  | |: ||: : |    | ||:|
Db         63 SEPGKYTAYEGQRVVFIQPSPVRDHYILYCEGELHGRQIRMAKLLG 108


RESULT 15
US-08-491-861A-62
; Sequence 62, Application US/08491861A
; Patent No. 5939283
; GENERAL INFORMATION:
;    APPLICANT: .Morgenstern, Jay P.
;    APPLICANT:  Kanieczny, Andrzey
;    APPLICANT:  Bizindaukas, Christine B.
;    APPLICANT:  Brauer, Andrew W.
;    TITLE OF INVENTION:  Allergenic Proteins and Peptides from Dog
;    TITLE OF INVENTION:  Dander and Uses Therefor
;    NUMBER OF SEQUENCES:  104
;    CORRESPONDENCE ADDRESS:
;      ADDRESSEE:  LAHIVE & COCKFIELD, LLP
;      STREET:  28 State Street
;      CITY:  Boston
;      STATE:  MA
;      COUNTRY:  USA
;      ZIP:  02109
;    COMPUTER READABLE FORM:
;      MEDIUM TYPE:  Floppy disk
;      COMPUTER:  IBM PC compatible
;      OPERATING SYSTEM:  PC-DOS/MS-DOS
;      SOFTWARE:  ASCII-text
;    CURRENT APPLICATION DATA:
;      APPLICATION NUMBER:  US/08/491,861A
;      FILING DATE:  27-OCT-1995
;      CLASSIFICATION:  435
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  07/999,712
;      FILING DATE:  31-Dec-92
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Mandragouras, Amy E.
;      REGISTRATION NUMBER:  36,207
;      REFERENCE/DOCKET NUMBER:  IMI-026CP(IPC-048CP)
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  (617) 227-7400
;      TELEFAX:  (617) 742-4214
;  INFORMATION FOR SEQ ID NO:  62:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  144 amino acids
;      TYPE:  amino acid
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  peptide
;    FRAGMENT TYPE:  internal
US-08-491-861A-62

  Query Match             29.4%;  Score 230;  DB 2;  Length 144;
  Best Local Similarity   38.7%;  Pred. No. 2.1e-20;
  Matches   41;  Conservative   26;  Mismatches   37;  Indels    2;  Gaps    1;

Qy         25 ITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDRCIQKKILMRKT 84
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                ::| ||:||| |:: || :| |:|: : | |||||| | : :| ::: ||
Db          5 VSGKWYLKAMTADQEVPE--KPDSVTPMILKAQKGGNLEAKITMLTNGQCQNITVVLHKT 62

Qy         85 EEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRGGLRYMGKLVG 130
                ||||::|| |::::::| | | |: ||: : | | ||:|
Db         63 SEPGKYTAYEGQRVVFIQPSPVRDHYILYCEGELHGRQIRMAKLLG 108
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Search completed: June 7, 2005, 14:41:04
Job time : 44 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: June 7, 2005, 14:26:40 ; Search time 160 Seconds
(without alignments)
352.919 Million cell updates/sec

Title: US-10-049-372-4
Perfect score: 782
Sequence: 1 MKTLFLGVTLGLAAALSFTL.....KLVGPCRCPHVGSPGHLTCR 146

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 2105692 seqs, 386760381 residues

Total number of hits satisfying chosen parameters: 2105692

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_16Dec04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	782	100.0	146	4	AAB67739	Aab67739 Amino aci
2	687.5	87.9	228	4	AAM78682	Aam78682 Human pro
3	687.5	87.9	228	4	AAB67740	Aab67740 Amino aci
4	679	86.8	170	4	AAB67738	Aab67738 Amino aci
5	646.5	82.7	221	4	ABG11868	Abg11868 Novel hum
6	623	79.7	170	2	AAW99669	Aaw99669 Human lip
7	623	79.7	170	2	AAW95641	Aaw95641 Human BS1
8	623	79.7	170	3	AAB33450	Aab33450 Human PRO
9	623	79.7	170	3	AAY99389	Aay99389 Human PRO
10	623	79.7	170	4	AAB66138	Aab66138 Protein o
11	623	79.7	170	4	AAB67742	Aab67742 Amino aci
12	623	79.7	170	5	ABB84919	Abb84919 Human PRO
13	623	79.7	170	5	AAE22099	Aae22099 Human Zli
14	623	79.7	170	5	ABB95525	Abb95525 Human ang
15	623	79.7	170	6	ABO33631	Abo33631 Novel hum
16	623	79.7	170	7	ABO44484	Abo44484 Human sec
17	623	79.7	170	7	ABO33508	Abo33508 Novel hum
18	623	79.7	170	7	ADC18031	Adc18031 Human PRO
19	623	79.7	170	7	ADD10495	Add10495 Human sec
20	623	79.7	170	7	ADD11455	Add11455 Human sec
21	623	79.7	170	7	ADD70677	Add70677 Human sec
22	623	79.7	170	7	ADD39754	Add39754 Human sec
23	623	79.7	170	7	ADD70200	Add70200 Human sec
24	623	79.7	170	7	ADD37248	Add37248 Human sec
25	623	79.7	170	7	ADD38321	Add38321 Human sec
26	623	79.7	170	7	ADD39277	Add39277 Human sec
27	623	79.7	170	7	ADD38800	Add38800 Human sec
28	623	79.7	170	7	ADD40231	Add40231 Human sec
29	623	79.7	170	7	ADE50452	Ade50452 Human sec
30	623	79.7	170	7	ADE20064	Ade20064 Human sec
31	623	79.7	170	7	ADE49975	Ade49975 Human sec
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35	623	79.7	170	7	ADH99355	Adh99355 Human sec
36	623	79.7	170	8	ADE41456	Ade41456 Human sec
37	623	79.7	170	8	ADE96535	Ade96535 Human sec
38	623	79.7	170	8	ADF25846	Adf25846 Human sec
39	623	79.7	170	8	ADF24745	Adf24745 Human sec
40	623	79.7	170	8	ADF29481	Adf29481 Human sec
41	623	79.7	170	8	ADE97012	Ade97012 Human sec
42	623	79.7	170	8	ADH03050	Adh03050 Human sec
43	623	79.7	170	8	ADH04004	Adh04004 Human sec
44	623	79.7	170	8	ADH03527	Adh03527 Human sec
45	623	79.7	170	8	ADH43639	Adh43639 Human PRO

ALIGNMENTS

RESULT 1
AAB67739
ID AAB67739 standard; protein; 146 AA.
XX
AC AAB67739;
XX
DT 11-JUN-2001 (first entry)
XX
DE Amino acid sequence of odorant binding polypeptide OBPIIa-beta.
XX
KW Odorant binding polypeptide; OBP; hydrophobic ligand; odorant; allergy;
KW asthma; cancer; perfume; hyperlipidemia; obesity; food additive;
KW anticancer; foetus detoxification; pregnancy marker.
XX
OS Homo sapiens.
XX
PN WO200112806-A2.
XX
PD 22-FEB-2001.
XX
PF 11-AUG-2000; 2000WO-FR002319.
XX
PR 12-AUG-1999; 99FR-00010439.
XX
PA (UYAU-) UNIV AUVERGNE.
PA (PITI/) PITIOT G.
XX
PI Pitiot G, Lacazette E, Gachon F;
XX
DR WPI; 2001-202864/20.
DR N-PSDB; AAF80040.
XX
PT New human odorant-binding proteins, useful for solubilizing lipophilic
PT compounds in the transportation of anticancer agents or for slow release
PT of perfumes.
XX
PS Claim 2; Page 109; 132pp; French.
XX
CC The present sequence represents a human odorant binding polypeptide
CC (OBP), designated OBPIIa-beta. OBPs provide long-term retention (gradual
CC release) of lipophilic compounds, so prolong the 'hold' of perfumes,
CC deodorants etc. . OBP polypeptides are used as binding proteins for
CC hydrophobic ligands (particularly odorants); as competitive inhibitors
CC (agonists or antagonists) of cellular lipocalcin receptors; to detect
CC specific antibodies for diagnosis of allergy, asthma or cancer; for
CC controlling volatilisation of an odorant, specifically in perfumes,
CC cosmetics or disinfectant compositions; to screen compounds, especially
CC odorants or flavours, e.g. human pheromones, for binding to OBP, also in

```
CC   analysis of complex perfume mixtures; to solubilise lipophilic compounds;
CC   for treating hyperlipidemia or obesity, or to supplement non-maternal
CC   milk when combined with nutritional fatty acids, as food additives; as a
CC   transporter of pharmaceuticals, especially anticancer agents (providing
CC   delayed release) but also for delivery across the placental barrier (e.g.
CC   for detoxification of the foetus); as a marker of pregnancy or foeto-
CC   placental pathology (rupture of the amniotic membrane); and as
CC   antiallergic agents
XX
SQ   Sequence 146 AA;

  Query Match             100.0%;  Score 782;  DB 4;  Length 146;
  Best Local Similarity   100.0%;  Pred. No. 9.8e-85;
  Matches  146;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120

Qy        121 GLRYMGKLVGPCRCPHVGSPGHLTCR 146
              |||||||||||||||||||||||||
Db        121 GLRYMGKLVGPCRCPHVGSPGHLTCR 146


RESULT 2
AAM78682
ID   AAM78682 standard; protein; 228 AA.
XX
AC   AAM78682;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human protein SEQ ID NO 1344.
XX
KW   Human; cytokine; cell proliferation; cell differentiation; gene therapy;
KW   vaccine; peptide therapy; stem cell growth factor; haematopoiesis;
KW   tissue growth factor; immunomodulatory; cancer; leukaemia;
KW   nervous system disorder; arthritis; inflammation.
XX
OS   Homo sapiens.
XX
PN   WO200157190-A2.
XX
PD   09-AUG-2001.
XX
PF   05-FEB-2001; 2001WO-US004098.
XX
PR   03-FEB-2000; 2000US-00496914.
PR   27-APR-2000; 2000US-00560875.
PR   20-JUN-2000; 2000US-00598075.
PR   19-JUL-2000; 2000US-00620325.
PR   01-SEP-2000; 2000US-00654936.
PR   15-SEP-2000; 2000US-00663561.
PR   20-OCT-2000; 2000US-00693325.
PR   30-NOV-2000; 2000US-00728422.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Tang YT,  Liu C,  Drmanac RT,  Asundi V,  Zhou P,  Xu C,  Cao Y;
PI   Ma Y,  Zhao QA,  Wang D,  Wang J,  Zhang J,  Ren F,  Chen R,  Wang ZW;
PI   Xue AJ,  Yang Y,  Wejhrman T,  Goodrich R;
XX
DR   WPI; 2001-476283/51.
DR   N-PSDB; AAK51815.
XX
PT   Nucleic acids encoding polypeptides with cytokine-like activities, useful
PT   in diagnosis and gene therapy.
XX
PS   Claim 20; Page 3588; 6221pp; English.
XX
CC   The invention relates to polynucleotides (AAK51456-AAK53435) and the
CC   encoded polypeptides (AAM78323-AAM80302) that exhibit activity elating to
CC   cytokine, cell proliferation or cell differentiation or which may induce
CC   production of other cytokines in other cell populations. The
CC   polynucleotides and polypeptides are useful in gene therapy, vaccines or
CC   peptide therapy. The polypeptides have various cytokine-like activities,
CC   e.g. stem cell growth factor activity, haematopoiesis regulating
CC   activity, tissue growth factor activity, immunomodulatory activity and
CC   activin/inhibin activity and may be useful in the diagnosis and/or
CC   treatment of cancer, leukaemia, nervous system disorders, arthritis and
CC   inflammation. Note: Records for SEQ ID NO 2110 (AAK52581), 2111
CC   (AAK52582) and 3666 (AAM80020) are omitted as the relevant pages from the
CC   sequence listing were missing at the time of publication
XX
SQ   Sequence 228 AA;

  Query Match             87.9%;  Score 687.5;  DB 4;  Length 228;
  Best Local Similarity   93.2%;  Pred. No. 3.4e-73;
  Matches  136;  Conservative    1;  Mismatches    6;  Indels    3;  Gaps    2;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120

Qy        121 GLRYMGKLV--GPCRCPHVGSPGHLT 144
              |||||||||   |||   : ||  ||
Db        121 GLRYMGKLVASAPCRAVPL-SPRRLT 145


RESULT 3
AAB67740
ID   AAB67740 standard; protein; 228 AA.
XX
AC   AAB67740;
XX
DT   11-JUN-2001  (first entry)
XX
DE   Amino acid sequence of odorant binding polypeptide OBPIIa-gamma.
XX
KW   Odorant binding polypeptide; OBP; hydrophobic ligand; odorant; allergy;
KW   asthma; cancer; perfume; hyperlipidemia; obesity; food additive;
KW   anticancer; foetus detoxification; pregnancy marker.
XX
OS   Homo sapiens.
XX
PN   WO200112806-A2.
XX
PD   22-FEB-2001.
XX
PF   11-AUG-2000; 2000WO-FR002319.
XX
PR   12-AUG-1999;   99FR-00010439.
XX
PA   (UYAU-) UNIV AUVERGNE.
PA   (PITI/) PITIOT G.
XX
PI   Pitiot G,  Lacazette E,  Gachon F;
XX
DR   WPI; 2001-202864/20.
DR   N-PSDB; AAF80041.
XX
PT   New human odorant-binding proteins, useful for solubilizing lipophilic
PT   compounds in the transportation of anticancer agents or for slow release
PT   of perfumes.
XX
PS   Claim 2; Page 111; 132pp; French.
XX
CC   The present sequence represents a human odorant binding polypeptide
```

```
CC   (OBP), designated OBPIIa-gamma. OBPs provide long-term retention (gradual
CC   release) of lipophilic compounds, so prolong the 'hold' of perfumes,
CC   deodorants etc. . OBP polypeptides are used as binding proteins for
CC   hydrophobic ligands (particularly odorants); as competitive inhibitors
CC   (agonists or antagonists) of cellular lipocalcin receptors; to detect
CC   specific antibodies for diagnosis of allergy, asthma or cancer; for
CC   controlling volatilisation of an odorant, specifically in perfumes,
CC   cosmetics or disinfectant compositions; to screen compounds, especially
CC   odorants or flavours, e.g. human pheromones, for binding to OBP, also in
CC   analysis of complex perfume mixtures; to solubilise lipophilic compounds;
CC   for treating hyperlipidemia or obesity, or to supplement non-maternal
CC   milk when combined with nutritional fatty acids, as food additives; as a
CC   transporter of pharmaceuticals, especially anticancer agents (providing
CC   delayed release) but also for delivery across the placental barrier (e.g.
CC   for detoxification of the foetus); as a marker of pregnancy or foeto-
CC   placental pathology (rupture of the amniotic membrane); and as
CC   antiallergic agents
XX
SQ   Sequence 228 AA;

  Query Match             87.9%;  Score 687.5;  DB 4;  Length 228;
  Best Local Similarity   93.2%;  Pred. No. 3.4e-73;
  Matches  136;  Conservative    1;  Mismatches    6;  Indels    3;  Gaps    2;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120

Qy        121 GLRYMGKLV--GPCRCPHVGSPGHLT 144
              |||||||||   |||   : ||  ||
Db        121 GLRYMGKLVASAPCRAVPL-SPRRLT 145


RESULT 4
AAB67738
ID   AAB67738 standard; protein; 170 AA.
XX
AC   AAB67738;
XX
DT   11-JUN-2001  (first entry)
XX
DE   Amino acid sequence of odorant binding polypeptide OBPIIa-alpha.
XX
KW   Odorant binding polypeptide; OBP; hydrophobic ligand; odorant; allergy;
KW   asthma; cancer; perfume; hyperlipidemia; obesity; food additive;
KW   anticancer; foetus detoxification; pregnancy marker.
XX
OS   Homo sapiens.
XX
PN   WO200112806-A2.
XX
PD   22-FEB-2001.
XX
PF   11-AUG-2000; 2000WO-FR002319.
XX
PR   12-AUG-1999;   99FR-00010439.
XX
PA   (UYAU-) UNIV AUVERGNE.
PA   (PITI/) PITIOT G.
XX
PI   Pitiot G,  Lacazette E,  Gachon F;
XX
DR   WPI; 2001-202864/20.
DR   N-PSDB; AAF80039.
XX
PT   New human odorant-binding proteins, useful for solubilizing lipophilic
PT   compounds in the transportation of anticancer agents or for slow release
PT   of perfumes.
XX
PS   Claim 2; Page 107; 132pp; French.
XX
CC   The present sequence represents a human odorant binding polypeptide
CC   (OBP), designated OBPIIa-alpha. OBPs provide long-term retention (gradual
CC   release) of lipophilic compounds, so prolong the 'hold' of perfumes,
CC   deodorants etc. . OBP polypeptides are used as binding proteins for
CC   hydrophobic ligands (particularly odorants); as competitive inhibitors
CC   (agonists or antagonists) of cellular lipocalcin receptors; to detect
CC   specific antibodies for diagnosis of allergy, asthma or cancer; for
CC   controlling volatilisation of an odorant, specifically in perfumes,
CC   cosmetics or disinfectant compositions; to screen compounds, especially
CC   odorants or flavours, e.g. human pheromones, for binding to OBP, also in
CC   analysis of complex perfume mixtures; to solubilise lipophilic compounds;
CC   for treating hyperlipidemia or obesity, or to supplement non-maternal
CC   milk when combined with nutritional fatty acids, as food additives; as a
CC   transporter of pharmaceuticals, especially anticancer agents (providing
CC   delayed release) but also for delivery across the placental barrier (e.g.
CC   for detoxification of the foetus); as a marker of pregnancy or foeto-
CC   placental pathology (rupture of the amniotic membrane); and as
CC   antiallergic agents
XX
SQ   Sequence 170 AA;

  Query Match             86.8%;  Score 679;  DB 4;  Length 170;
  Best Local Similarity   100.0%;  Pred. No. 2.4e-72;
  Matches  130;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120

Qy        121 GLRYMGKLVG 130
              ||||||||||
Db        121 GLRYMGKLVG 130


RESULT 5
ABG11868
ID   ABG11868 standard; protein; 221 AA.
XX
AC   ABG11868;
XX
DT   18-FEB-2002  (first entry)
XX
DE   Novel human diagnostic protein #11859.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2001; 2001WO-US008631.
XX
PR   31-MAR-2000; 2000US-00540217.
PR   23-AUG-2000; 2000US-00649167.
XX
PA   (HYSE-) HYSEQ INC.
XX
PI   Drmanac RT,  Liu C,  Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS76055.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
```

```
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity.
XX
PS   Claim 20; SEQ ID NO 42227; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and polypeptide (II)
CC   sequences. (I) is useful as hybridisation probes, polymerase chain
CC   reaction (PCR) primers, oligomers, and for chromosome and gene mapping,
CC   and in recombinant production of (II). The polynucleotides are also used
CC   in diagnostics as expressed sequence tags for identifying expressed
CC   genes. (I) is useful in gene therapy techniques to restore normal
CC   activity of (II) or to treat disease states involving (II). (II) is
CC   useful for generating antibodies against it, detecting or quantitating a
CC   polypeptide in tissue, as molecular weight markers and as a food
CC   supplement. (II) and its binding partners are useful in medical imaging
CC   of sites expressing (II). (I) and (II) are useful for treating disorders
CC   involving aberrant protein expression or biological activity. The
CC   polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human diagnostic
CC   amino acid sequences of the invention. Note: The sequence data for this
CC   patent did not appear in the printed specification, but was obtained in
CC   electronic format directly from WIPO at
CC   ftp.wipo.int/pub/published_pct_sequences
XX
SQ   Sequence 221 AA;

  Query Match             82.7%;  Score 646.5;  DB 4;  Length 221;
  Best Local Similarity   84.8%;  Pred. No. 2.6e-68;
  Matches  128;  Conservative    1;  Mismatches    1;  Indels   21;  Gaps    1;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAY--------------------GGRKLI 99
              ||||||||||||||||||||||||||||||:||                    ||||||
Db         61 NLEATFTFMREDRCIQKKILMRKTEEPGKYSACEPLPDPPLPMPNPGCTSPTADGGRKLI 120

Qy        100 YLQELPGTDDYVFYCKDQRRGGLRYMGKLVG 130
              ||||||||||||||||||||||||||||||
Db        121 YLQELPGTDDYVFYCKDQRRGGLRYMGKLVG 151


RESULT 6
AAW99669
ID   AAW99669 standard; protein; 170 AA.
XX
AC   AAW99669;
XX
DT   07-JUN-1999  (first entry)
XX
DE   Human lipocalin homologue zlipo1 protein SEQ ID NO:2.
XX
KW   Human; lipocalin; testis; mammary gland; breast tumour; zlipo1;
KW   breast cancer; emphysema; skin disease; reproduction; anti-inflammatory;
KW   antimicrobial.
XX
OS   Homo sapiens.
XX
PN   WO9907740-A2.
XX
PD   18-FEB-1999.
XX
PF   06-AUG-1998;   98WO-US016425.
XX
PR   06-AUG-1997;   97US-0054867P.
XX
PA   (ZYMO ) ZYMOGENETICS INC.
XX
PI   Conklin DC;
XX
DR   WPI; 1999-167367/14.
DR   N-PSDB; AAX19505.
XX
PT   New lipocalin homologue designated zlipo1 - whose expression is
PT   restricted to testis and mammary gland tissues, particularly breast
PT   tumour tissue, used to, e.g. predict tumour aggresiveness.
XX
PS   Claim 12; Page 83-84; 94pp; English.
XX
CC   The present sequence represents a human lipocalin homologue, designated
CC   zlipo1. The lipocalin homologue, zlipo1, is specifically expressed in
CC   testis and mammary gland, particularly breast tumour tissue. Based on
CC   this tissue distribution, zlipo1 may be used as a diagnostic for breast
CC   carcinomas and as a tool for predicting tumour aggressiveness. Agonists
CC   can be used for transportation of small hydrophobic molecules either in
CC   vivo or in vitro, and so are useful in specifically promoting the growth
CC   and/or development of testis-specific cell lineages in culture. Zlipo1
CC   can be used to identify inhibitors. Zlipo1 proteins can also be used to
CC   prepare antibodies (which can be linked to toxins), and can serve as
CC   immunogens. Zlipo1 proteins can be used as a delivery and encapsulation
CC   system to transport and/or stabilise small lipophilic molecules, e.g. to
CC   protect from gut pH and digestive enzymes. They can also be used to bind
CC   small fatty acids in blood or tissues to modulate their biological
CC   function, e.g. to transport retinoids or steroids to receptors, in
CC   particular as therapy for breast cancer, emphysema and diseases of the
CC   skin. They may also play an important role in reproduction. Other uses
CC   include anti-inflammatory responses, and antimicrobial activities. Zlipo1
CC   nucleic acid sequences may be used for gene therapy to increase or
CC   inhibit zlipo1 activity, to derive probes and primers, to derive
CC   antisense sequences, and to detect genetic abnormalities
XX
SQ   Sequence 170 AA;

  Query Match             79.7%;  Score 623;  DB 2;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.2e-65;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 7
AAW95641
ID   AAW95641 standard; protein; 170 AA.
XX
AC   AAW95641;
XX
DT   08-JUN-1999  (first entry)
XX
DE   Human BS124 specific epitope.
XX
KW   BS124; breast; cancer; detection; diagnosis; prevention; treatment;
KW   epitope.
XX
OS   Homo sapiens.
XX
PN   WO9859049-A1.
XX
PD   30-DEC-1998.
XX
PF   19-JUN-1998;   98WO-US012862.
XX
PR   20-JUN-1997;   97US-00879354.
```

XX
PA (ABBO) ABBOTT LAB.
XX
PI Billing-Medel PA, Cohen M, Colpitts TL, Friedman PN, Gordon J;
PI Granados EN, Hodges SC, Klass MR, Kratochvil JD, Russell JC;
PI Scheffel CP, Stroupe SD, Yu H;
XX
DR WPI; 1999-105623/09.
XX
PT New isolated BS124 polynucleotides and polypeptides - used for detecting,
PT diagnosing, preventing or treating diseases or conditions of the breast,
PT such as breast cancer.
XX
PS Disclosure; Page 98-99; 125pp; English.
XX
CC The sequence is that of a BS124-specific epitope. It is useful for
CC detecting, diagnosing, staging, preventing or treating, or determining
CC predisposition to diseases or conditions of the breast, such as breast
CC cancer
XX
SQ Sequence 170 AA;

Query Match 79.7%; Score 623; DB 2; Length 170;
Best Local Similarity 91.5%; Pred. No. 1.2e-65;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

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Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
               || :||||||
Db        121 GLLHMGKLVG 130
```

RESULT 8
AAB33450
ID AAB33450 standard; protein; 170 AA.
XX
AC AAB33450;
XX
DT 29-JAN-2001 (first entry)
XX
DE Human PRO1283 protein UNQ653 SEQ ID NO:170.
XX
KW Human; immune related disease; diagnosis; antiinflammatory; cardiant;
KW dermatological; antiarthritic; antirheumatic; immunosuppressive;
KW haemostatic; antithyroid; antidiabetic; nootropic; neuroprotective;
KW antianaemic; hepatotropic; virucide; antipsoriatic; antiallergic;
KW antiasthmatic; systemic lupus erythematosus; rheumatoid arthritis;
KW osteoarthritis; spondyloarthropathy; systemic sclerosis; sarcoidosis;
KW idiopathic inflammatory myopathy; Sjogren's syndrome; thyroiditis;
KW systemic vasculitis; autoimmune haemolytic anaemia; diabetes mellitus;
KW autoimmune thrombocytopaenia; immune-mediated renal disease;
KW demyelinating disease; hepatobiliary disease; Whipple's disease;
KW inflammatory bowel disease; gluten-sensitive enteropathy;
KW autoimmune disease; immune-mediated skin disease; allergic disease;
KW immunological disease; transplantation associated disease;
KW graft rejection; graft-versus-host-disease.
XX
OS Homo sapiens.
XX
PN WO200053758-A2.
XX
PD 14-SEP-2000.
XX
PF 02-MAR-2000; 2000WO-US005841.
XX
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99US-0123618P.
PR 12-MAR-1999; 99US-0123957P.
PR 23-MAR-1999; 99US-0125775P.
PR 12-APR-1999; 99US-0128849P.
PR 20-APR-1999; 99WO-US008615.
PR 28-APR-1999; 99US-0131445P.
PR 04-MAY-1999; 99US-0132371P.
PR 14-MAY-1999; 99US-0134287P.
PR 02-JUN-1999; 99WO-US012252.
PR 23-JUN-1999; 99US-0141037P.
PR 20-JUL-1999; 99US-0144758P.
PR 26-JUL-1999; 99US-0145698P.
PR 28-JUL-1999; 99US-0146222P.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-OCT-1999; 99US-0162506P.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030999.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
XX
PA (GETH) GENENTECH INC.
XX
PI Ashkenazi AJ, Baker KP, Goddard A, Gurney AL, Hebert C, Henzel W;
PI Kabakoff RC, Lu Y, Pan J, Pennica D, Shelton DL, Smith V;
PI Stewart TA, Tumas D, Watanabe CK, Wood WI, Yan M;
XX
DR WPI; 2000-572271/53.
DR N-PSDB; AAC58615.
XX
PT Sixty four PRO polypeptides, useful in the diagnosis and treatment of
PT immune related disorders, e.g. systemic lupus erythematosis, rheumatoid
PT arthritis, osteoarthritis, thyroiditis and diabetes mellitus.
XX
PS Claim 33; Fig 74; 309pp; English.
XX
CC The present invention describes sixty four human PRO proteins which can
CC be used in the treatment of immune related diseases. The human PRO
CC proteins, anti-PRO antibodies, agonists and antagonists are useful for
CC treating and diagnosing immune related disorders. The disorders are
CC selected from systemic lupus erythematosus, rheumatoid arthritis,
CC osteoarthritis, juvenile chronic arthritis, spondyloarthropathies,
CC systemic sclerosis, idiopathic inflammatory myopathies, Sjogren's
CC syndrome, systemic vasculitis, sarcoidosis, autoimmune haemolytic
CC anaemia, autoimmune thrombocytopaenia, thyroiditis, diabetes mellitus,
CC immune-mediated renal disease, demyelinating diseases of the central and
CC peripheral nervous systems, hepatobiliary diseases, inflammatory bowel
CC disease, gluten-sensitive enteropathy and Whipple's disease, autoimmune
CC or immune-mediated skin diseases, allergic diseases, immunological
CC diseases of the lung, and transplantation associated diseases including
CC graft rejection and graft-versus-host-disease. AAC58397 to AAC58578
CC represent PCR primers and hybridisation probes used in the isolation of
CC human PRO sequences. AAC58579 to AAC58642 and AAB33414 to AAB33477
CC represent human PRO polynucleotide and protein sequences given in the
CC exemplification of the present invention

```
XX
SQ   Sequence 170 AA;

  Query Match             79.7%;  Score 623;  DB 3;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.2e-65;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 9
AAY99389
ID   AAY99389 standard; protein; 170 AA.
XX
AC   AAY99389;
XX
DT   08-AUG-2000  (first entry)
XX
DE   Human PRO1283 (UNQ653) amino acid sequence SEQ ID NO:162.
XX
KW   Human; PRO polypeptide; membrane bound protein; receptor; diagnosis;
KW   transmembrane; secretion; immunoadhesion; pharmaceutical; screening.
XX
OS   Homo sapiens.
XX
PN   WO200012708-A2.
XX
PD   09-MAR-2000.
XX
PF   01-SEP-1999;   99WO-US020111.
XX
PR   01-SEP-1998;   98US-0098716P.
PR   01-SEP-1998;   98US-0098749P.
PR   01-SEP-1998;   98US-0098750P.
PR   02-SEP-1998;   98US-0098803P.
PR   02-SEP-1998;   98US-0098821P.
PR   02-SEP-1998;   98US-0098843P.
PR   09-SEP-1998;   98US-0099536P.
PR   09-SEP-1998;   98US-0099596P.
PR   09-SEP-1998;   98US-0099598P.
PR   09-SEP-1998;   98US-0099602P.
PR   09-SEP-1998;   98US-0099642P.
PR   10-SEP-1998;   98US-0099741P.
PR   10-SEP-1998;   98US-0099754P.
PR   10-SEP-1998;   98US-0099763P.
PR   10-SEP-1998;   98US-0099792P.
PR   10-SEP-1998;   98US-0099808P.
PR   10-SEP-1998;   98US-0099812P.
PR   10-SEP-1998;   98US-0099815P.
PR   10-SEP-1998;   98US-0099816P.
PR   15-SEP-1998;   98US-0100385P.
PR   15-SEP-1998;   98US-0100388P.
PR   15-SEP-1998;   98US-0100390P.
PR   16-SEP-1998;   98US-0100584P.
PR   16-SEP-1998;   98US-0100627P.
PR   16-SEP-1998;   98US-0100661P.
PR   16-SEP-1998;   98US-0100662P.
PR   16-SEP-1998;   98US-0100664P.
PR   17-SEP-1998;   98US-0100683P.
PR   17-SEP-1998;   98US-0100684P.
PR   17-SEP-1998;   98US-0100710P.
PR   17-SEP-1998;   98US-0100711P.
PR   17-SEP-1998;   98US-0100919P.
PR   17-SEP-1998;   98US-0100930P.
PR   18-SEP-1998;   98US-0100848P.
PR   18-SEP-1998;   98US-0100849P.
PR   18-SEP-1998;   98US-0101014P.
PR   18-SEP-1998;   98US-0101068P.
PR   18-SEP-1998;   98US-0101071P.
PR   22-SEP-1998;   98US-0101279P.
PR   23-SEP-1998;   98US-0101471P.
PR   23-SEP-1998;   98US-0101472P.
PR   23-SEP-1998;   98US-0101474P.
PR   23-SEP-1998;   98US-0101475P.
PR   23-SEP-1998;   98US-0101476P.
PR   23-SEP-1998;   98US-0101477P.
PR   23-SEP-1998;   98US-0101479P.
PR   24-SEP-1998;   98US-0101738P.
PR   24-SEP-1998;   98US-0101741P.
PR   24-SEP-1998;   98US-0101743P.
PR   24-SEP-1998;   98US-0101915P.
PR   24-SEP-1998;   98US-0101916P.
PR   29-SEP-1998;   98US-0102207P.
PR   29-SEP-1998;   98US-0102240P.
PR   29-SEP-1998;   98US-0102307P.
PR   29-SEP-1998;   98US-0102330P.
PR   29-SEP-1998;   98US-0102331P.
PR   30-SEP-1998;   98US-0102484P.
PR   30-SEP-1998;   98US-0102487P.
PR   30-SEP-1998;   98US-0102570P.
PR   30-SEP-1998;   98US-0102571P.
PR   01-OCT-1998;   98US-0102684P.
PR   01-OCT-1998;   98US-0102687P.
PR   02-OCT-1998;   98US-0102965P.
PR   06-OCT-1998;   98US-0103258P.
PR   06-OCT-1998;   98US-0103449P.
PR   07-OCT-1998;   98US-0103314P.
PR   07-OCT-1998;   98US-0103315P.
PR   07-OCT-1998;   98US-0103328P.
PR   07-OCT-1998;   98US-0103395P.
PR   07-OCT-1998;   98US-0103396P.
PR   07-OCT-1998;   98US-0103401P.
PR   08-OCT-1998;   98US-0103633P.
PR   08-OCT-1998;   98US-0103678P.
PR   08-OCT-1998;   98US-0103679P.
PR   08-OCT-1998;   98US-0103711P.
PR   14-OCT-1998;   98US-0104257P.
PR   20-OCT-1998;   98US-0104987P.
PR   20-OCT-1998;   98US-0105000P.
PR   20-OCT-1998;   98US-0105002P.
PR   21-OCT-1998;   98US-0105104P.
PR   22-OCT-1998;   98US-0105169P.
PR   22-OCT-1998;   98US-0105266P.
PR   26-OCT-1998;   98US-0105693P.
PR   26-OCT-1998;   98US-0105694P.
PR   27-OCT-1998;   98US-0105807P.
PR   27-OCT-1998;   98US-0105881P.
PR   27-OCT-1998;   98US-0105882P.
PR   27-OCT-1998;   98US-0106062P.
PR   28-OCT-1998;   98US-0106023P.
PR   28-OCT-1998;   98US-0106029P.
PR   28-OCT-1998;   98US-0106030P.
PR   28-OCT-1998;   98US-0106032P.
PR   28-OCT-1998;   98US-0106033P.
PR   28-OCT-1998;   98US-0106178P.
PR   29-OCT-1998;   98US-0106248P.
PR   29-OCT-1998;   98US-0106384P.
PR   29-OCT-1998;   98US-0108500P.
PR   30-OCT-1998;   98US-0106464P.
PR   03-NOV-1998;   98US-0106856P.
PR   03-NOV-1998;   98US-0106902P.
PR   03-NOV-1998;   98US-0106905P.
PR   03-NOV-1998;   98US-0106919P.
PR   03-NOV-1998;   98US-0106932P.
PR   03-NOV-1998;   98US-0106934P.
PR   10-NOV-1998;   98US-0107783P.
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PR   17-NOV-1998;   98US-0108775P.
PR   17-NOV-1998;   98US-0108779P.
PR   17-NOV-1998;   98US-0108787P.
PR   17-NOV-1998;   98US-0108788P.
PR   17-NOV-1998;   98US-0108801P.
PR   17-NOV-1998;   98US-0108802P.
PR   17-NOV-1998;   98US-0108806P.
PR   17-NOV-1998;   98US-0108807P.
PR   17-NOV-1998;   98US-0108867P.
PR   17-NOV-1998;   98US-0108925P.
PR   18-NOV-1998;   98US-0108848P.
PR   18-NOV-1998;   98US-0108849P.
PR   18-NOV-1998;   98US-0108850P.
PR   18-NOV-1998;   98US-0108851P.
PR   18-NOV-1998;   98US-0108852P.
PR   18-NOV-1998;   98US-0108858P.
PR   18-NOV-1998;   98US-0108904P.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker K,  Goddard A,  Gurney AL,  Smith V,  Watanabe CK,  Wood WI;
XX
DR   WPI; 2000-237871/20.
DR   N-PSDB; AAA37071.
XX
PT   New mammalian DNA sequences encoding transmembrane, receptor or secreted
PT   PRO polypeptides, useful for screening of potential peptide or small
PT   molecule inhibitors of the relevant receptor/ligand interactions.
XX
PS   Claim 12; Fig 100; 773pp; English.
XX
CC   AAA37022 to AAA37144 encode the new isolated human transmembrane,
CC   receptor or secreted PRO polypeptides given in AAY99340 to AAY99462. The
CC   transmembrane and receptor PRO proteins can be used for screening of
CC   potential peptide or small molecule inhibitors of the relevant
CC   receptor/ligand interactions. The polypeptides and nucleotide sequences
CC   encoding then have various industrial applications, including uses as
CC   pharmaceutical and diagnostic agents. AAA37145 to AAA37330 represent PCR
CC   primers and hybridisation probes used in the isolation of the PRO
CC   polypeptides from the present invention
XX
SQ   Sequence 170 AA;

  Query Match             79.7%;  Score 623;  DB 3;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.2e-65;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 10
AAB66138
ID   AAB66138 standard; protein; 170 AA.
XX
AC   AAB66138;
XX
DT   02-APR-2001  (first entry)
XX
DE   Protein of the invention #50.
XX
KW   Secreted; transmembrane; gene therapy.
XX
OS   Unidentified.
XX
PN   WO200078961-A1.
XX
PD   28-DEC-2000.
XX
PF   18-FEB-2000; 2000WO-US004342.
XX
PR   23-JUN-1999;   99US-0141037P.
PR   20-JUL-1999;   99US-0144758P.
PR   26-JUL-1999;   99US-0145698P.
PR   01-SEP-1999;   99WO-US020111.
PR   29-OCT-1999;   99US-0162506P.
PR   30-NOV-1999;   99WO-US028313.
PR   02-DEC-1999;   99WO-US028551.
PR   16-DEC-1999;   99WO-US030095.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000376.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Botstein D,  Desnoyers L,  Eaton DL,  Ferrara N,  Fong S;
PI   Gao W,  Goddard A,  Godowski PJ,  Grimaldi CJ,  Gurney AL,  Hillan KJ;
PI   Pan J,  Paoni NF,  Roy MA,  Smith V,  Stewart TA,  Tumas D,  Watanabe CK;
PI   Williams PM,  Wood WI;
XX
DR   WPI; 2001-071395/08.
XX
PT   Secreted and transmembrane proteins and nucleic acids designated PRO,
PT   useful as hybridization probes, in chromosome and gene mapping and gene
PT   therapy.
XX
PS   Claim 1; Fig 100; 787pp; English.
XX
CC   The present invention relates to secreted and transmembrane proteins.
CC   These proteins and the DNA encoding them may be used as hybridization
CC   probes, in chromosome and gene mapping and in the generation of anti-
CC   sense RNA and DNA. They may also be used used to generate either
CC   transgenic animals or knockout animals which are in turn useful for
CC   development and screening of therapeutically useful reagents. The nucleic
CC   acids may also be used in gene therapy
XX
SQ   Sequence 170 AA;

  Query Match             79.7%;  Score 623;  DB 4;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.2e-65;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 11
AAB67742
ID   AAB67742 standard; protein; 170 AA.
XX
AC   AAB67742;
XX
DT   11-JUN-2001  (first entry)
XX
DE   Amino acid sequence of odorant binding polypeptide OBPIIb-alpha.
XX
KW   Odorant binding polypeptide; OBP; hydrophobic ligand; odorant; allergy;
KW   asthma; cancer; perfume; hyperlipidemia; obesity; food additive;
KW   anticancer; foetus detoxification; pregnancy marker.
```

```
XX
OS   Homo sapiens.
XX
PN   WO200112806-A2.
XX
PD   22-FEB-2001.
XX
PF   11-AUG-2000; 2000WO-FR002319.
XX
PR   12-AUG-1999;   99FR-00010439.
XX
PA   (UYAU-) UNIV AUVERGNE.
PA   (PITI/) PITIOT G.
XX
PI   Pitiot G,  Lacazette E,  Gachon F;
XX
DR   WPI; 2001-202864/20.
DR   N-PSDB; AAF80043.
XX
PT   New human odorant-binding proteins, useful for solubilizing lipophilic
PT   compounds in the transportation of anticancer agents or for slow release
PT   of perfumes.
XX
PS   Claim 24; Page 114-115; 132pp; French.
XX
CC   The present sequence represents a human odorant binding polypeptide
CC   (OBP), designated OBPIIb-alpha. OBPs provide long-term retention (gradual
CC   release) of lipophilic compounds, so prolong the 'hold' of perfumes,
CC   deodorants etc. . OBP polypeptides are used as binding proteins for
CC   hydrophobic ligands (particularly odorants); as competitive inhibitors
CC   (agonists or antagonists) of cellular lipocalcin receptors; to detect
CC   specific antibodies for diagnosis of allergy, asthma or cancer; for
CC   controlling volatilisation of an odorant, specifically in perfumes,
CC   cosmetics or disinfectant compositions; to screen compounds, especially
CC   odorants or flavours, e.g. human pheromones, for binding to OBP, also in
CC   analysis of complex perfume mixtures; to solubilise lipophilic compounds;
CC   for treating hyperlipidemia or obesity, or to supplement non-maternal
CC   milk when combined with nutritional fatty acids, as food additives; as a
CC   transporter of pharmaceuticals, especially anticancer agents (providing
CC   delayed release) but also for delivery across the placental barrier (e.g.
CC   for detoxification of the foetus); as a marker of pregnancy or foeto-
CC   placental pathology (rupture of the amniotic membrane); and as
CC   antiallergic agents
XX
SQ   Sequence 170 AA;

  Query Match             79.7%;  Score 623;  DB 4;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.2e-65;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
               |||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
               || :||||||
Db        121 GLLHMGKLVG 130


RESULT 12
ABB84919
ID   ABB84919 standard; protein; 170 AA.
XX
AC   ABB84919;
XX
DT   16-MAY-2002  (first entry)
XX
DE   Human PRO1283 protein sequence SEQ ID NO:206.
XX
KW   Human; angiogenesis; cardiant; cytostatic; antiangiogenic; hypotensive;
KW   vulnerary; antiarteriosclerotic; PRO agonist; PRO antagonist; trauma;
KW   gene therapy; cardiovascular disorder; endothelial disorder; cancer;
KW   angiogenic disorder; cardiac hypertrophy; atherosclerosis; hypertension;
KW   age-related macular degeneration; arterial restenosis; angina;
KW   rheumatoid arthritis; myocardial infarction; thrombophlebitis;
KW   lymphangitis; tumour angiogenesis; breast carcinoma; liver carcinoma;
KW   wound healing; chromosome mapping; gene mapping.
XX
OS   Homo sapiens.
XX
PN   WO200200690-A2.
XX
PD   03-JAN-2002.
XX
PF   20-JUN-2001; 2001WO-US019692.
XX
PR   23-JUN-2000; 2000US-0213637P.
PR   20-JUL-2000; 2000US-0219556P.
PR   25-JUL-2000; 2000US-0220624P.
PR   25-JUL-2000; 2000US-0220664P.
PR   28-JUL-2000; 2000WO-US020710.
PR   02-AUG-2000; 2000US-0222695P.
PR   17-AUG-2000; 2000US-00643657.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   07-SEP-2000; 2000US-0230978P.
PR   18-SEP-2000; 2000US-00664610.
PR   18-SEP-2000; 2000US-00665350.
PR   24-OCT-2000; 2000US-0242922P.
PR   08-NOV-2000; 2000US-00709238.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   22-JAN-2001; 2001US-00767609.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   30-MAY-2001; 2001US-00870574.
PR   30-MAY-2001; 2001WO-US017443.
PR   01-JUN-2001; 2001WO-US017800.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Ferrara N,  Gerber H,  Gerritsen ME,  Goddard A;
PI   Godowski PJ,  Gurney AL,  Hillan KJ,  Marsters SA,  Pan J,  Paoni NF;
PI   Stephan JF,  Watanabe CK,  Williams PM,  Wood WI,  Ye W;
XX
DR   WPI; 2002-090516/12.
DR   N-PSDB; ABL88174.
XX
PT   One hundred and eighty seven nucleic acids encoding PRO polypeptides,
PT   useful in diagnosis and treatment of cardiovascular (e.g. myocardial
PT   infarction), endothelial or angiogenic disorders in a mammal.
XX
PS   Claim 11; Fig 206; 565pp; English.
XX
CC   ABL88072 to ABL88258 encode the PRO proteins given in ABB84817 to
CC   ABB85003. The PRO proteins and polynucleotides have cardiant, cytostatic,
CC   antiangiogenic, hypotensive, vulnerary and antiarteriosclerotic
CC   activities, and can be used in gene therapy. The PRO polynucleotides,
CC   proteins, agonists and antagonists are useful for treating or diagnosing
```

CC a cardiovascular, endothelial or angiogenic disorder in a mammal, e.g.
CC cardiac hypertrophy, trauma, cancer, age-related macular degeneration,
CC atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis,
CC angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour
CC angiogenesis (such as breast carcinoma and liver carcinoma) and wound
CC healing. The PRO polynucleotides have applications in molecular biology,
CC including use as hybridisation probes, and in chromosome and gene
CC mapping. ABL88259 to ABL88267 represent primers and probes used in the
CC exemplification of the present invention
XX
SQ Sequence 170 AA;

Query Match 79.7%; Score 623; DB 5; Length 170;
Best Local Similarity 91.5%; Pred. No. 1.2e-65;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

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Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130
```

RESULT 13
AAE22099
ID AAE22099 standard; protein; 170 AA.
XX
AC AAE22099;
XX
DT 25-JUL-2002 (first entry)
XX
DE Human Zlipo1 protein.
XX
KW Human; lipocalin protein; Zlipo1; glycodelin; phermone; anxiety;
KW beneficial mood; hypothalamic; satiety; identification; energy balance;
KW reproductive biology.
XX
OS Homo sapiens.
XX
PN WO200223201-A2.
XX
PD 21-MAR-2002.
XX
PF 12-SEP-2001; 2001WO-US028525.
XX
PR 13-SEP-2000; 2000US-0232218P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Lok S, Foster DC, Holloway JL;
XX
DR WPI; 2002-362374/39.
DR N-PSDB; AAD35179.
XX
PT Use of Zlipo1 or glycodelin (human pheromone polypeptides) for
PT identifying presence of Zlipo1 receptor, glycodelin receptor, Zlipo1
PT ligand or glycodelin ligand in test sample.
XX
PS Claim 1; Page 47-48; 50pp; English.
XX
CC The invention relates to a method of using two human lipocalin proteins,
CC Zlipo1 and glycodelin as phermone polypeptides. Human phermones are used
CC to alleviate anxiety, promote beneficial moods and to alter hypothalamic
CC functions, such as satiety, energy balance and reproductive biology. The
CC sequences of the invention are used for identifying the presence of
CC Zlipo1 receptor or a glycodelin receptor in a test sample, or for
CC identifying the presence of a Zlipo1 ligand or a glycodelin ligand in a
CC test sample. The present sequence is human Zlipo1 protein
XX
SQ Sequence 170 AA;

Query Match 79.7%; Score 623; DB 5; Length 170;
Best Local Similarity 91.5%; Pred. No. 1.2e-65;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

```
Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

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RESULT 14
ABB95525
ID ABB95525 standard; protein; 170 AA.
XX
AC ABB95525;
XX
DT 19-JUL-2002 (first entry)
XX
DE Human angiogenesis related protein PRO1283 SEQ ID NO: 206.
XX
KW Human; angiogenesis; PRO protein; cardiovascularisation; wound; cancer;
KW atherosclerosis; cardiac hypertrophy; gene therapy; endothelial disorder;
KW cardiant; cytostatic; antiangiogenic; hypotensive; vulnerary;
KW antiarteriosclerotic.
XX
OS Homo sapiens.
XX
PN WO200208284-A2.
XX
PD 31-JAN-2002.
XX
PF 09-JUL-2001; 2001WO-US021735.
XX
PR 20-JUL-2000; 2000US-0219556P.
PR 25-JUL-2000; 2000US-0220624P.
PR 25-JUL-2000; 2000US-0220664P.
PR 28-JUL-2000; 2000WO-US020710.
PR 02-AUG-2000; 2000US-0222695P.
PR 17-AUG-2000; 2000US-00643657.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 07-SEP-2000; 2000US-0230978P.
PR 18-SEP-2000; 2000US-00664610.
PR 18-SEP-2000; 2000US-00665350.
PR 24-OCT-2000; 2000US-0242922P.
PR 08-NOV-2000; 2000US-00709238.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 22-JAN-2001; 2001US-00767609.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
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PR 25-MAY-2001; 2001US-00866034.
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PR 30-MAY-2001; 2001WO-US017443.
PR 01-JUN-2001; 2001WO-US017800.
PR 20-JUN-2001; 2001WO-US019692.
XX
PA (GETH) GENENTECH INC.
PA (BAKE/) BAKER K P.
PA (FERR/) FERRARA N.
PA (GERB/) GERBER H.
PA (GERR/) GERRITSEN M E.
PA (GODD/) GODDARD A.
PA (GODO/) GODOWSKI P J.
PA (GURN/) GURNEY A L.
PA (HILL/) HILLAN K J.
PA (MARS/) MARSTERS S A.
PA (PANJ/) PAN J.
PA (PAON/) PAONI N F.
PA (STEP/) STEPHAN J F.
PA (WATA/) WATANABE C K.
PA (WILL/) WILLIAMS P M.
PA (WOOD/) WOOD W I.
XX
PI Baker KP, Ferrara N, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Gurney AL, Hillan KJ, Marsters SA, Pan J, Paoni NF;
PI Stephan JF, Watanabe CK, Williams PM, Wood WI, Ye W;
XX
DR WPI; 2002-171999/22.
DR N-PSDB; ABL95663.
XX
PT One hundred and eighty seven nucleic acids encoding PRO polypeptides,
PT useful in diagnosis and treatment of cardiovascular (e.g. myocardial
PT infarction), endothelial or angiogenic disorders in a mammal.
XX
PS Claim 11; Fig 206; 567pp; English.
XX
CC The present invention provides the protein and coding sequences of human
CC PRO proteins. These are useful for treating or diagnosing a
CC cardiovascular, endothelial or angiogenic disorder, including cardiac
CC hypertrophy, trauma, cancer, age-related macular degeneration,
CC atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis,
CC angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour
CC angiogenesis (such as breast carcinoma and liver carcinoma) and wound
CC healing. The present sequence is a PRO protein of the invention
XX
SQ Sequence 170 AA;

Query Match 79.7%; Score 623; DB 5; Length 170;
Best Local Similarity 91.5%; Pred. No. 1.2e-65;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

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RESULT 15
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AC ABO33631;
XX
DT 17-SEP-2003 (first entry)
XX
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XX
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KW endothelial cell proliferation; wound healing; immune response;
KW T-lymphocytes proliferation; neonatal heart hypertrophy; tumour;
KW cardiac insufficiency disorder; calcium flux; inflammation;
KW vascular endothelial growth factor-stimulated proliferation;
KW mammalian kidney mesangial cell proliferation; Berger disease;
KW nephropathy; Schanlein-Henoch purpura; celiac disease; Crohn's disease;
KW dermatitis herpetiformis; diabetes; haemoglobin switch; insulinaemia;
KW pancreatic beta-cell precursor cell differentiation; thalassemias;
KW obesity; auditory hair cell regeneration; hearing loss; bone disorder;
KW cartilage disorder; sports injury; arthritis.
XX
OS Homo sapiens.
XX
PN US2003073130-A1.
XX
PD 17-APR-2003.
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PF 11-DEC-2001; 2001US-00015869.
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PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 23-AUG-2000; 2000WO-US023522.
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PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 01-JUN-2001; 2001WO-US017800.
PR 20-JUN-2001; 2001WO-US019692.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 04-SEP-2001; 2001US-00946374.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Botstein D, Desnoyers L, Eaton DL, Ferrara N, Fong S;
PI Gao W, Goddard A, Godowski PJ, Grimaldi JC, Gurney AL, Hillan KJ;
PI Pan J, Paoni NF, Roy MA, Smith V, Stewart TA, Tumas D, Watanabe CK;
PI Williams PM, Wood WI;
XX
DR WPI; 2003-585293/55.
DR N-PSDB; ACD68350.
XX
PT Novel isolated PRO polypeptides e.g. PRO1130, PRO1275, PRO1418, PRO1555,
PT PRO1787 that modulate glucose or free fatty acid uptake by skeletal
PT muscle cells, and are useful for treating diabetes, hyper- or hypo-

Query Match 79.7%; Score 623; DB 6; Length 170;
Best Local Similarity 91.5%; Pred. No. 1.2e-65;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

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SUMMARIES

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35	623	79.7	170	14	US-10-011-833A-162	Sequence 162, App
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37	623	79.7	170	14	US-10-015-822A-162	Sequence 162, App
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42	623	79.7	170	14	US-10-015-392A-162	Sequence 162, App
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ALIGNMENTS

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; Patent No. US20020019990A1
; GENERAL INFORMATION:
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; APPLICANT: COHEN, MAURICE
; APPLICANT: COLPITTS, TRACEY L.
; APPLICANT: FRIEDMAN, PAULA N.
; APPLICANT: GORDON, JULIAN
; APPLICANT: GRANADOS, EDWARD N.
; APPLICANT: HODGES, STEVEN C.
; APPLICANT: KLASS, MICHAEL R.
; APPLICANT: KRATOCHVIL, JON D.
; APPLICANT: RUSSELL, JOHN C.
; APPLICANT: SCHEFFEL, CHRISTI
; APPLICANT: STROUPE, STEPHEN D.
; APPLICANT: YU, HONG
; TITLE OF INVENTION: REAGENTS AND METHODS USEFUL
; TITLE OF INVENTION: FOR DETECTING DISEASES OF THE BREAST
; NUMBER OF SEQUENCES: 27
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Abbott Laboratories
; STREET: 100 Abbott Park Road
; CITY: Abbott Park
; STATE: IL
; COUNTRY: USA
; ZIP: 60064-3500
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Diskette
; COMPUTER: IBM Compatible
; OPERATING SYSTEM: DOS
; SOFTWARE: FastSEQ for Windows Version 2.0
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09/099,823

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;      FILING DATE:
;      CLASSIFICATION:
;    PRIOR APPLICATION DATA:
;      APPLICATION NUMBER:  08/879,354
;      FILING DATE:  20-JUN-1997
;    ATTORNEY/AGENT INFORMATION:
;      NAME:  Becker, Cheryl L.
;      REGISTRATION NUMBER:  35,441
;      REFERENCE/DOCKET NUMBER:  6120.US.P1
;    TELECOMMUNICATION INFORMATION:
;      TELEPHONE:  847/935-1729
;      TELEFAX:  847/938-2623
;      TELEX:
;  INFORMATION FOR SEQ ID NO:  22:
;    SEQUENCE CHARACTERISTICS:
;      LENGTH:  170 amino acids
;      TYPE:  amino acid
;      STRANDEDNESS:  single
;      TOPOLOGY:  linear
;    MOLECULE TYPE:  No. US20020018990A1e
US-09-099-823-22

  Query Match             79.7%;  Score 623;  DB 9;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
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Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 2
US-09-951-845-2
; Sequence 2, Application US/09951845
; Patent No. US20020098497A1
; GENERAL INFORMATION:
;  APPLICANT: Lok, Si
;  APPLICANT:  Foster, Donald C.
;  APPLICANT:  Holloway, James L.
;  TITLE OF INVENTION: Use of Human Phermone Polypeptides
;  FILE REFERENCE: 00-85
;  CURRENT APPLICATION NUMBER: US/09/951,845
;  CURRENT FILING DATE:  2001-09-12
;  NUMBER OF SEQ ID NOS: 5
;  SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 2
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-951-845-2

  Query Match             79.7%;  Score 623;  DB 9;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
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Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
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Db        121 GLLHMGKLVG 130


RESULT 3
US-09-946-374-162
; Sequence 162, Application US/09946374
; Publication No. US20030073129A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan L.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  APPLICANT:  Roy, Margaret Ann
;  APPLICANT:  Smith, Victoria
;  APPLICANT:  Stewart, Timothy A.
;  APPLICANT:  Tumas, Daniel
;  APPLICANT:  Watanabe, Colin K.
;  APPLICANT:  Williams, P. Mickey
;  APPLICANT:  Wood, William I.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C1
;  CURRENT APPLICATION NUMBER: US/09/946,374
;  CURRENT FILING DATE:  2001-09-04
;  PRIOR APPLICATION NUMBER: 60/098716
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098723
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098749
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098750
;  PRIOR FILING DATE: 1998-09-01
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;  PRIOR APPLICATION NUMBER: 60/099536
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;  PRIOR APPLICATION NUMBER: 60/099596
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;  PRIOR FILING DATE: 1998-09-09
;  PRIOR APPLICATION NUMBER: 60/099602
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;  PRIOR FILING DATE: 1998-09-10
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;  PRIOR FILING DATE: 1998-09-10
;  PRIOR APPLICATION NUMBER: 60/099816
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; PRIOR FILING DATE: 1998-09-10
; PRIOR APPLICATION NUMBER: 60/100385
; PRIOR FILING DATE: 1998-09-15
; PRIOR APPLICATION NUMBER: 60/100388
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; PRIOR APPLICATION NUMBER: 60/103258
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; PRIOR APPLICATION NUMBER: 60/105000
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; PRIOR APPLICATION NUMBER: 60/105002
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; PRIOR APPLICATION NUMBER: 60/105104
; PRIOR FILING DATE: 1998-10-21
; PRIOR APPLICATION NUMBER: 60/105169
; PRIOR FILING DATE: 1998-10-22
; PRIOR APPLICATION NUMBER: 60/105266
; PRIOR FILING DATE: 1998-10-22
; PRIOR APPLICATION NUMBER: 60/105693
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: 60/105694
; PRIOR FILING DATE: 1998-10-26
; PRIOR APPLICATION NUMBER: 60/105807

Query Match 79.7%; Score 623; DB 10; Length 170;
Best Local Similarity 91.5%; Pred. No. 1.6e-62;
Matches 119; Conservative 4; Mismatches 7; Indels 0; Gaps 0;

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Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
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Db        121 GLLHMGKLVG 130


RESULT 4
US-10-006-856A-162
; Sequence 162, Application US/10006856A
; Publication No. US20030044841A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C14
;  CURRENT APPLICATION NUMBER: US/10/006,856A
;  CURRENT FILING DATE:  2002-05-10
;  NUMBER OF SEQ ID NOS: 477
;  Prior Application removed - See File Wrapper or Palm
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-006-856A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
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Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
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Db        121 GLLHMGKLVG 130


RESULT 5
US-10-006-818A-162
; Sequence 162, Application US/10006818A
; Publication No. US20030054406A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C4
;  CURRENT APPLICATION NUMBER: US/10/006,818A
;  CURRENT FILING DATE:  2001-12-06
;  Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-006-818A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
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Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 6
US-10-006-485A-162
; Sequence 162, Application US/10006485A
; Publication No. US20030064062A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C9
;  CURRENT APPLICATION NUMBER: US/10/006,485A
;  CURRENT FILING DATE:  2001-12-06
;  PRIOR APPLICATION NUMBER: 60/098716
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098723
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; PRIOR APPLICATION NUMBER: 60/102331
; PRIOR FILING DATE: 1998-09-29
; PRIOR APPLICATION NUMBER: 60/102484
; PRIOR FILING DATE: 1998-09-30
; PRIOR APPLICATION NUMBER: 60/102487
; PRIOR FILING DATE: 1998-09-30
; PRIOR APPLICATION NUMBER: 60/102570
; PRIOR FILING DATE: 1998-09-30
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; PRIOR FILING DATE: 1998-10-01
; PRIOR APPLICATION NUMBER: 60/102687
; PRIOR FILING DATE: 1998-10-01
; PRIOR APPLICATION NUMBER: 60/102965
; PRIOR FILING DATE: 1998-10-02
; PRIOR APPLICATION NUMBER: 60/103258
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; PRIOR APPLICATION NUMBER: 60/103314
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103315
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103328
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103395
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103396
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103401
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103449
; PRIOR FILING DATE: 1998-10-06
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; PRIOR APPLICATION NUMBER: 60/103678
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; PRIOR APPLICATION NUMBER: 60/103679
; PRIOR FILING DATE: 1998-10-08
; PRIOR APPLICATION NUMBER: 60/103711
; PRIOR FILING DATE: 1998-10-08
; PRIOR APPLICATION NUMBER: 60/104257
; PRIOR FILING DATE: 1998-10-14
; PRIOR APPLICATION NUMBER: 60/104987
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: 60/105000
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: 60/105002
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: 60/105104
; PRIOR FILING DATE: 1998-10-21
; PRIOR APPLICATION NUMBER: 60/105169
; PRIOR FILING DATE: 1998-10-22
; PRIOR APPLICATION NUMBER: 60/105266
; PRIOR FILING DATE: 1998-10-22

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;  PRIOR APPLICATION NUMBER: 60/105693
;  PRIOR FILING DATE: 1998-10-26
;  PRIOR APPLICATION NUMBER: 60/105694
;  PRIOR FILING DATE: 1998-10-26
;  PRIOR APPLICATION NUMBER: 60/105807
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/105881
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/105882
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/106023
;  PRIOR FILING DATE: 1998-10-28

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
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Db        121 GLLHMGKLVG 130


RESULT 7
US-10-013-907A-162
; Sequence 162, Application US/10013907A
; Publication No. US20030064925A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C34
;  CURRENT APPLICATION NUMBER: US/10/013,907A
;  CURRENT FILING DATE:  2001-12-10
;  Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-013-907A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 8
US-10-015-499A-162
; Sequence 162, Application US/10015499A
; Publication No. US20030065142A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C42
;  CURRENT APPLICATION NUMBER: US/10/015,499A
;  CURRENT FILING DATE:  2001-12-11
;  Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-015-499A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
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Db        121 GLLHMGKLVG 130


RESULT 9
US-10-015-393A-162
; Sequence 162, Application US/10015393A
; Publication No. US20030069179A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
```

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;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C46
;  CURRENT APPLICATION NUMBER: US/10/015,393A
;  CURRENT FILING DATE:  2002-06-10
;  Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-015-393A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 10
US-10-015-869A-162
; Sequence 162, Application US/10015869A
; Publication No. US20030073130A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C45
;  CURRENT APPLICATION NUMBER: US/10/015,869A
;  CURRENT FILING DATE:  2002-06-25
;     Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-015-869A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 11
US-10-012-121A-162
; Sequence 162, Application US/10012121A
; Publication No. US20030073810A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C20
;  CURRENT APPLICATION NUMBER: US/10/012,121A
;  CURRENT FILING DATE:  2001-12-07
;  Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-012-121A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
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Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 12
US-10-006-116A-162
; Sequence 162, Application US/10006116A
; Publication No. US20030082626A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
```

; APPLICANT: Pan, James
; APPLICANT: Paoni, Nicholas F.
; TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
; TITLE OF INVENTION: Acids Encoding the Same
; FILE REFERENCE: P2830P1C15
; CURRENT APPLICATION NUMBER: US/10/006,116A
; CURRENT FILING DATE: 2001-12-16
; PRIOR APPLICATION NUMBER: 60/098716
; PRIOR FILING DATE: 1998-09-01
; PRIOR APPLICATION NUMBER: 60/098723
; PRIOR FILING DATE: 1998-09-01
; PRIOR APPLICATION NUMBER: 60/098749
; PRIOR FILING DATE: 1998-09-01
; PRIOR APPLICATION NUMBER: 60/098750
; PRIOR FILING DATE: 1998-09-01
; PRIOR APPLICATION NUMBER: 60/098803
; PRIOR FILING DATE: 1998-09-02
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; PRIOR FILING DATE: 1998-09-30
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; PRIOR FILING DATE: 1998-09-30
; PRIOR APPLICATION NUMBER: 60/102684
; PRIOR FILING DATE: 1998-10-01
; PRIOR APPLICATION NUMBER: 60/102687
; PRIOR FILING DATE: 1998-10-01
; PRIOR APPLICATION NUMBER: 60/102965
; PRIOR FILING DATE: 1998-10-02
; PRIOR APPLICATION NUMBER: 60/103258
; PRIOR FILING DATE: 1998-10-06
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; PRIOR APPLICATION NUMBER: 60/103315
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; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103395
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103396

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;  PRIOR FILING DATE: 1998-10-07
;  PRIOR APPLICATION NUMBER: 60/103401
;  PRIOR FILING DATE: 1998-10-07
;  PRIOR APPLICATION NUMBER: 60/103449
;  PRIOR FILING DATE: 1998-10-06
;  PRIOR APPLICATION NUMBER: 60/103633
;  PRIOR FILING DATE: 1998-10-08
;  PRIOR APPLICATION NUMBER: 60/103678
;  PRIOR FILING DATE: 1998-10-08
;  PRIOR APPLICATION NUMBER: 60/103679
;  PRIOR FILING DATE: 1998-10-08
;  PRIOR APPLICATION NUMBER: 60/103711
;  PRIOR FILING DATE: 1998-10-08
;  PRIOR APPLICATION NUMBER: 60/104257
;  PRIOR FILING DATE: 1998-10-14
;  PRIOR APPLICATION NUMBER: 60/104987
;  PRIOR FILING DATE: 1998-10-20
;  PRIOR APPLICATION NUMBER: 60/105000
;  PRIOR FILING DATE: 1998-10-20
;  PRIOR APPLICATION NUMBER: 60/105002
;  PRIOR FILING DATE: 1998-10-20
;  PRIOR APPLICATION NUMBER: 60/105104
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;  PRIOR FILING DATE: 1998-10-22
;  PRIOR APPLICATION NUMBER: 60/105266
;  PRIOR FILING DATE: 1998-10-22
;  PRIOR APPLICATION NUMBER: 60/105693
;  PRIOR FILING DATE: 1998-10-26
;  PRIOR APPLICATION NUMBER: 60/105694
;  PRIOR FILING DATE: 1998-10-26
;  PRIOR APPLICATION NUMBER: 60/105807
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/105881
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/105882
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/106023
;  PRIOR FILING DATE: 1998-10-28

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 13
US-10-006-117A-162
; Sequence 162, Application US/10006117A
; Publication No. US20030082627A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C13
;  CURRENT APPLICATION NUMBER: US/10/006,117A
;  CURRENT FILING DATE:  2002-03-19
;  Prior Application removed - See File Wrapper or Palm
;  PRIOR FILING DATE: 2001-07-09
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-006-117A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 14
US-10-017-527A-162
; Sequence 162, Application US/10017527A
; Publication No. US20030082628A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C63
;  CURRENT APPLICATION NUMBER: US/10/017,527A
;  CURRENT FILING DATE:  2001-12-13
;  PRIOR APPLICATION NUMBER: 60/098716
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098723
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098749
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098750
;  PRIOR FILING DATE: 1998-09-01
;  PRIOR APPLICATION NUMBER: 60/098803
;  PRIOR FILING DATE: 1998-09-02
;  PRIOR APPLICATION NUMBER: 60/098821
;  PRIOR FILING DATE: 1998-09-02
;  PRIOR APPLICATION NUMBER: 60/098843
;  PRIOR FILING DATE: 1998-09-02
;  PRIOR APPLICATION NUMBER: 60/099536
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; PRIOR FILING DATE: 1998-09-09
; PRIOR APPLICATION NUMBER: 60/099596
; PRIOR FILING DATE: 1998-09-09
; PRIOR APPLICATION NUMBER: 60/099598
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; PRIOR APPLICATION NUMBER: 60/099642
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; PRIOR APPLICATION NUMBER: 60/099792
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; PRIOR APPLICATION NUMBER: 60/100388
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; PRIOR APPLICATION NUMBER: 60/100664
; PRIOR FILING DATE: 1998-09-16
; PRIOR APPLICATION NUMBER: 60/100683
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: 60/100684
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: 60/100710
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; PRIOR APPLICATION NUMBER: 60/100711
; PRIOR FILING DATE: 1998-09-17
; PRIOR APPLICATION NUMBER: 60/100848
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; PRIOR APPLICATION NUMBER: 60/100849
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; PRIOR APPLICATION NUMBER: 60/100919
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; PRIOR APPLICATION NUMBER: 60/100930
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; PRIOR APPLICATION NUMBER: 60/101014
; PRIOR FILING DATE: 1998-09-18
; PRIOR APPLICATION NUMBER: 60/101068
; PRIOR FILING DATE: 1998-09-18
; PRIOR APPLICATION NUMBER: 60/101071
; PRIOR FILING DATE: 1998-09-18
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; PRIOR APPLICATION NUMBER: 60/102965
; PRIOR FILING DATE: 1998-10-02
; PRIOR APPLICATION NUMBER: 60/103258
; PRIOR FILING DATE: 1998-10-06
; PRIOR APPLICATION NUMBER: 60/103314
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103315
; PRIOR FILING DATE: 1998-10-07
; PRIOR APPLICATION NUMBER: 60/103328
; PRIOR FILING DATE: 1998-10-07
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; PRIOR APPLICATION NUMBER: 60/103401
; PRIOR FILING DATE: 1998-10-07
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; PRIOR FILING DATE: 1998-10-08
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; PRIOR FILING DATE: 1998-10-14
; PRIOR APPLICATION NUMBER: 60/104987
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: 60/105000
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: 60/105002
; PRIOR FILING DATE: 1998-10-20
; PRIOR APPLICATION NUMBER: 60/105104

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;  PRIOR FILING DATE: 1998-10-21
;  PRIOR APPLICATION NUMBER: 60/105169
;  PRIOR FILING DATE: 1998-10-22
;  PRIOR APPLICATION NUMBER: 60/105266
;  PRIOR FILING DATE: 1998-10-22
;  PRIOR APPLICATION NUMBER: 60/105693
;  PRIOR FILING DATE: 1998-10-26
;  PRIOR APPLICATION NUMBER: 60/105694
;  PRIOR FILING DATE: 1998-10-26
;  PRIOR APPLICATION NUMBER: 60/105807
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/105881
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/105882
;  PRIOR FILING DATE: 1998-10-27
;  PRIOR APPLICATION NUMBER: 60/106023
;  PRIOR FILING DATE: 1998-10-28

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


RESULT 15
US-10-013-913A-162
; Sequence 162, Application US/10013913A
; Publication No. US20030083462A1
; GENERAL INFORMATION:
;  APPLICANT: Baker, Kevin P.
;  APPLICANT:  Botstein, David
;  APPLICANT:  Desnoyers, Luc
;  APPLICANT:  Eaton, Dan l.
;  APPLICANT:  Ferrara, Napoleone
;  APPLICANT:  Fong, Sherman
;  APPLICANT:  Gao, Wei-Qiang
;  APPLICANT:  Goddard, Audrey
;  APPLICANT:  Godowski, Paul J.
;  APPLICANT:  Grimaldi, Christopher J.
;  APPLICANT:  Gurney, Austin L.
;  APPLICANT:  Hillan, Kenneth J.
;  APPLICANT:  Pan, James
;  APPLICANT:  Paoni, Nicholas F.
;  TITLE OF INVENTION: Secreted and Transmembrane Polypeptides and Nucleic
;  TITLE OF INVENTION:  Acids Encoding the Same
;  FILE REFERENCE: P2830P1C40
;  CURRENT APPLICATION NUMBER: US/10/013,913A
;  CURRENT FILING DATE:  2002-07-15
;  Prior Application removed - See File Wrapper or Palm
;  NUMBER OF SEQ ID NOS: 477
; SEQ ID NO 162
;   LENGTH: 170
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-013-913A-162

  Query Match             79.7%;  Score 623;  DB 14;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.6e-62;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
              || :||||||
Db        121 GLLHMGKLVG 130


Search completed: June  7, 2005, 14:43:39
Job time : 149 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: June 7, 2005, 14:30:34 ; Search time 39 Seconds
(without alignments)
360.196 Million cell updates/sec

Title: US-10-049-372-4
Perfect score: 782
Sequence: 1 MKTLFLGVTLGLAAALSFTL.....KLVGPCRCPHVGSPGHLTCR 146

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	284.5	36.4	176	2	A40464	odorant-binding pr
2	274.5	35.1	176	1	LCHUL	lacrimal lipocalin
3	239	30.6	177	2	S43647	von Ebner's gland
4	238.5	30.5	176	2	JC6503	tear lipocalin von
5	232	29.7	177	2	S08161	hydrophobic molecu
6	205	26.2	185	2	S51803	vomeronasal secret
7	186.5	23.8	176	2	A33672	late lactation pro
8	171	21.9	182	2	S51802	vomeronasal secret
9	138	17.6	85	2	A28561	late lactation pro
10	122	15.6	183	2	S25465	lipocalin - giant
11	120.5	15.4	184	2	S52354	gene cpl-1 protein
12	118	15.1	162	2	S33876	beta-lactoglobulin
13	108.5	13.9	155	2	A29699	beta-lactoglobulin
14	107	13.7	180	1	LGGT	beta-lactoglobulin
15	106.5	13.6	161	2	S33877	beta-lactoglobulin
16	105	13.4	163	2	S11538	beta-lactoglobulin
17	102	13.0	161	2	S33878	beta-lactoglobulin
18	101	12.9	180	1	LGSH	beta-lactoglobulin
19	99	12.7	178	1	LGBO	beta-lactoglobulin
20	99	12.7	178	2	A45542	beta-lactoglobulin
21	96.5	12.3	163	2	S14719	beta-lactoglobulin
22	96.5	12.3	166	1	LGHO2	beta-lactoglobulin
23	96	12.3	180	1	A39167	placental protein
24	93.5	12.0	161	2	S33875	beta-lactoglobulin
25	89.5	11.4	177	1	OVFGP	olfactory protein
26	89	11.4	162	1	LGBUI	beta-lactoglobulin
27	89	11.4	162	2	S00132	beta-lactoglobulin
28	89	11.4	188	1	SQRTAD	androgen-dependent
29	88	11.3	178	2	A30230	quiescence-specifi
30	85	10.9	172	2	A28713	odorant-binding pr
31	84	10.7	162	1	LGHOD	beta-lactoglobulin
32	82	10.5	162	1	LGHO	beta-lactoglobulin
33	79.5	10.2	233	2	T35594	hypothetical prote
34	79	10.1	379	2	T45286	butyryl-CoA dehydr
35	76	9.7	777	2	C41830	DNA primase - phag
36	75	9.6	292	1	JQ0400	phosphoribulokinas
37	74.5	9.5	537	2	B86274	F7A19.16 protein -
38	73	9.3	189	2	S57748	prostaglandin D sy
39	73	9.3	611	2	T27820	hypothetical prote
40	72.5	9.3	252	1	A38159	3,4-dihydroxy-2-bu
41	72.5	9.3	339	2	AD3501	Mg(2+) chelatase f
42	72	9.2	604	2	T15091	hypothetical prote
43	71.5	9.1	217	2	A85965	3,4 dihydroxy-2-bu
44	71.5	9.1	217	2	A98120	3,4 dihydroxy-2-bu
45	71.5	9.1	337	2	S74044	hypothetical prote

ALIGNMENTS

RESULT 1
A40464
odorant-binding protein homolog OBP-II precursor - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 28-May-1992 #sequence_revision 28-May-1992 #text_change 09-Jul-2004
C;Accession: A40464
R;Dear, T.N.; Campbell, K.; Rabbitts, T.H.
Biochemistry 30, 10376-10382, 1991
A;Title: Molecular cloning of putative odorant-binding and odorant-metabolizing protein
A;Reference number: A40464; MUID:92031476; PMID:1931961
A;Accession: A40464
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-176 <DEA>
A;Cross-references: UNIPROT:Q63613; GB:M76733
C;Superfamily: lipocalin; lipocalin homology
F;25-171/Domain: lipocalin homology <LIP>

Query Match 36.4%; Score 284.5; DB 2; Length 176;
Best Local Similarity 44.4%; Pred. No. 2e-21;
Matches 60; Conservative 21; Mismatches 49; Indels 5; Gaps 2;

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Qy          1 MKTLFLGV-TLGLAAALSFTL----EEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVT 55
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Db          1 MKSRLLTVLLLGLMAVLKAQEAPPDDQEDFSGKWYTKATVCDRNHTDGKRPMKVFPMTVT 60

Qy         56 ALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCK 115
               || ||:||   ||  :  |  ::| | ||:||||:: : |:|  | :|:|  | |:|| |
Db         61 ALEGGDLEVRITFRGKGHCHLRRITMHKTDEPGKYTTFKGKKTFYTKEIPVKDHYIFYIK 120

Qy        116 DQRRGGLRYMGKLVG 130
               || |    |||||
Db        121 GQRHGKSYLKGKLVG 135
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RESULT 2
LCHUL
lacrimal lipocalin precursor - human
N;Alternate names: lipocalin 1; PMFA; tear prealbumin; von Ebner's gland protein
C;Species: Homo sapiens (man)
C;Date: 10-Jun-1993 #sequence_revision 02-Jun-1995 #text_change 09-Jul-2004
C;Accession: A44029; A49186; S29842; I53728; S18929; S34277
R;Redl, B.; Holzfeind, P.; Lottspeich, F.
J. Biol. Chem. 267, 20282-20287, 1992
A;Title: cDNA cloning and sequencing reveals human tear prealbumin to be a member of th
A;Reference number: A44029; MUID:93015903; PMID:1400345
A;Accession: A44029
A;Molecule type: mRNA; protein
A;Residues: 1-176 <RED>
A;Cross-references: UNIPROT:P31025; GB:M90424; NID:g642380; PIDN:AAA61845.1; PID:g18445
A;Experimental source: lacrimal gland, tears
A;Note: sequence extracted from NCBI backbone (NCBIN:115716, NCBIP:115717)

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A;Note: part of this sequence, including the amino end of the mature protein, were deter
A;Note: 22-Leu and 24-Ser were also observed as amino-terminal residues
R;Lassagne, H.; Gachon, A.M.
Exp. Eye Res. 56, 605-609, 1993
A;Title: Cloning of a human lacrimal lipocalin secreted in tears.
A;Reference number: A49186; MUID:93272888; PMID:8500570
A;Accession: A49186
A;Molecule type: mRNA; protein
A;Residues: 1-176 <LAS>
A;Cross-references: EMBL:X67647; NID:g313855; PIDN:CAA47889.1; PID:g313856
A;Experimental source: lacrimal gland
A;Note: sequence extracted from NCBI backbone (NCBIN:133186, NCBIP:133187)
R;Blaeker, M.; Kock, K.; Ahlers, C.; Buck, F.; Schmale, H.
Biochim. Biophys. Acta 1172, 131-137, 1993
A;Title: Molecular cloning of human von Ebner's gland protein, a member of the lipocalin
A;Reference number: S29842; MUID:93176795; PMID:7679926
A;Accession: S29842
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-176 <BL2>
A;Cross-references: EMBL:X62418; NID:g37660; PIDN:CAA44284.1; PID:g37661
R;Holzfeind, P.; Redl, B.
Gene 139, 177-183, 1994
A;Title: Structural organization of the gene encoding the human lipocalin tear prealbumi
A;Reference number: I53728; MUID:94156196; PMID:8112601
A;Accession: I53728
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-176 <RE2>
A;Cross-references: GB:L14927; NID:g307517; PIDN:AAA18633.1; PID:g307518
C;Genetics:
A;Gene: GDB:LCN1; TP
A;Cross-references: GDB:138345; OMIM:151675
A;Map position: 9q34-9q34
A;Introns: 30/3; 74/2; 98/1; 135/1; 169/1
C;Superfamily: lipocalin; lipocalin homology
C;Keywords: extracellular protein; von Ebner's gland
F;1-18/Domain: signal sequence #status predicted <SIG>
F;21-176/Product: lacrimal lipocalin #status predicted <MAT>
F;26-171/Domain: lipocalin homology <LIP>
F;79-171/Disulfide bonds: #status predicted

  Query Match             35.1%;  Score 274.5;  DB 1;  Length 176;
  Best Local Similarity   42.3%;  Pred. No. 2e-20;
  Matches   58;  Conservative   27;  Mismatches   41;  Indels   11;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALS----FTLEEE--DITGTWYVKAMVVDKDFPEDRRPRKVSPVKV 54
              || | | |:||| |||        :||  |::||||:||| ||::|||      |:|: :
Db          1 MKPLLLAVSLGLIAALQAHHLLASDEEIQDVSGTWYLKAMTVDREFPE-MNLESVTPMTL 59

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
               | | ||||||  | :   || : | :: ||:||||::| ||: : |:       | |:|||
Db         60 TTLEGGNLEAKVTMLISGRCQEVKAVLEKTDEPGKYTADGGKHVAYIIRSHVKDHYIFYC 119

Qy        115 KDQRRG----GLRYMGK 127
              : :  |    |:: :|:
Db        120 EGELHGKPVRGVKLVGR 136


RESULT 3
S43647
von Ebner's gland protein VEGP2 - rat
C;Species: Rattus norvegicus (Norway rat)
C;Date: 20-Oct-1994 #sequence_revision 19-Oct-1995 #text_change 09-Jul-2004
C;Accession: S43647
R;Kock, K.; Ahlers, C.; Schmale, H.
Eur. J. Biochem. 221, 905-916, 1994
A;Title: Structural organization of the genes for rat von Ebner's gland proteins 1 and 2
A;Reference number: S43647; MUID:94237155; PMID:7514123
A;Accession: S43647
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-177 <KOC>
A;Cross-references: UNIPROT:P41244; GB:X74806; NID:g505302; PIDN:CAA52810.1; PID:g505303
C;Superfamily: lipocalin; lipocalin homology
F;25-172/Domain: lipocalin homology <LIP>

  Query Match             30.6%;  Score 239;  DB 2;  Length 177;
  Best Local Similarity   37.1%;  Pred. No. 8.1e-17;
  Matches   53;  Conservative   28;  Mismatches   54;  Indels    8;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALS-----FTLEEEDITGTWYVKAMVVDKDFPEDR-RPRKVSPVKV 54
              || | |  :| | |||       | | :|::||||:||   ||: |: : :    |:|:|:
Db          1 MKALLLTFSLSLLAALQAQAFPTTEENQDVSGTWYLKAAAWDKEIPDKKFGSVSVTPMKI 60

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
               | ||||:  || :   || :   :: ||:||||::|| |::::|       | |:||
Db         61 KTLEGGNLQVKFTVLISGRCQEMSTVLEKTDEPGKYTAYSGKQVVYSIPSAVEDHYIFYY 120

Qy        115 KDQRRGGLRYMGKLVGPCRCPHV 137
              : :       : ||||  | | :
Db        121 EGKIHRHHFQIAKLVG--RNPEI 141


RESULT 4
JC6503
tear lipocalin von Ebner's gland protein - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 05-Feb-1999 #sequence_revision 05-Feb-1999 #text_change 09-Jul-2004
C;Accession: JC6503
R;Holzfeind, P.; Merschak, P.; Wojnar, P.; Redl, B.
Gene 202, 61-67, 1997
A;Title: Structure and organization of the porcine LCN1 gene encoding Tear lipocadin/von
A;Reference number: JC6503; MUID:98087418; PMID:9427546
A;Accession: JC6503
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-176 <HOL>
A;Cross-references: UNIPROT:P53715; GB:U96150
C;Superfamily: lipocalin; lipocalin homology
F;27-171/Domain: lipocalin homology <LIP>

  Query Match             30.5%;  Score 238.5;  DB 2;  Length 176;
  Best Local Similarity   36.2%;  Pred. No. 9.1e-17;
  Matches   50;  Conservative   30;  Mismatches   47;  Indels   11;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEE--------EDITGTWYVKAMVVDKDFPEDRRPRKVSPV 52
              |: | | : ||| |||     :|        :|: | ||:|||  | : |  ::|  |:|:
Db          2 MRALLLAIGLGLVAALQ--AQEFPAVGQPLQDLLGRWYLKAMTSDPEIP-GKKPESVTPL 58

Qy         53 KVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVF 112
               : || ||:|||  ||: : :|    ::::|| :|  |:|| |::::|:      | |:
Db         59 ILKALEGGDLEAQITFLIDGQCQDVTLVLKKTNQPFTFTAYDGKRVVYILPSKVKDHYIL 118

Qy        113 YCKDQRRGGLRYMGKLVG 130
              ||: :  |    | ||||
Db        119 YCEGELDGQEVRMAKLVG 136


RESULT 5
S08161
hydrophobic molecule transport protein VEG precursor - rat
N;Alternate names: von Ebner's gland proteins VEGP1
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Sep-1991 #sequence_revision 30-Sep-1991 #text_change 09-Jul-2004
C;Accession: S08161; S43648
R;Schmale, H.; Holtgreve-Grez, H.; Christiansen, H.
Nature 343, 366-369, 1990
A;Title: Possible role for salivary gland protein in taste reception indicated by homolc
A;Reference number: S08161; MUID:90136923; PMID:1689010
A;Accession: S08161
A;Status: not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 1-177 <SCH>
A;Cross-references: UNIPROT:P20289; GB:X52016; GB:X62419; NID:g57473; PIDN:CAA36263.1; P
R;Kock, K.; Ahlers, C.; Schmale, H.
```

Eur. J. Biochem. 221, 905-916, 1994
A;Title: Structural organization of the genes for rat von Ebner's gland proteins 1 and 2
A;Reference number: S43647; MUID:94237155; PMID:7514123
A;Accession: S43648
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-177 <KOC>
A;Cross-references: GB:X74805; NID:g505300; PIDN:CAA52809.1; PID:g505301
C;Superfamily: lipocalin; lipocalin homology
F;1-21/Domain: signal sequence #status predicted <SIG>
F;22-177/Product: hydrophobic molecule transporter VEG #status predicted <MAT>
F;25-172/Domain: lipocalin homology <LIP>

Query Match 29.7%; Score 232; DB 2; Length 177;
Best Local Similarity 36.4%; Pred. No. 4.2e-16;
Matches 52; Conservative 28; Mismatches 55; Indels 8; Gaps 3;

```
Qy          1 MKTLFLGVTLGLAAALS-----FTLEEEDITGTWYVKAMVVDKDFPEDR-RPRKVSPVKV 54
              || | |   | | |||       | | :|::||||:||   ||: |: :     |:|:|:
Db          1 MKALLLTFGLSLLAALQAQAFPTTEENQDVSGTWYLKAAAWDKEIPDKKFGSVSVTPMKI 60

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
                | ||||:  || :   || :   :: ||:|| |::|| |::::|:       | |:||
Db         61 KTLEGGNLQVKFTVLIAGRCKEMSTVLEKTDEPAKYTAYSGKQVLYIIPSSVEDHYIFYY 120

Qy        115 KDQRRGGLRYMGKLVGPCRCPHV 137
              : :       : ||||  | | :
Db        121 EGKIHRHHFQIAKLVG--RDPEI 141
```

RESULT 6
S51803
vomeronasal secretory protein II precursor - mouse
N;Alternate names: probable pheromone carrier VNSP II
C;Species: Mus musculus (house mouse)
C;Date: 15-Jul-1995 #sequence_revision 01-Sep-1995 #text_change 09-Jul-2004
C;Accession: S51803
R;Miyawaki, A.; Matsushita, F.; Ryo, Y.; Mikoshiba, K.
EMBO J. 13, 5835-5842, 1994
A;Title: Possible pheromone-carrier function of two lipocalin proteins in the vomeronasa
A;Reference number: S51803; MUID:95112792; PMID:7813422
A;Accession: S51803
A;Status: nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-185 <MIY>
A;Cross-references: UNIPROT:Q62472; EMBL:D38581; NID:g1408323; PIDN:BAA07582.1; PID:g639
C;Superfamily: lipocalin; lipocalin homology
C;Keywords: carrier protein; glycoprotein
F;27-172/Domain: lipocalin homology <LIP>

Query Match 26.2%; Score 205; DB 2; Length 185;
Best Local Similarity 33.3%; Pred. No. 2.4e-13;
Matches 48; Conservative 22; Mismatches 52; Indels 22; Gaps 3;

```
Qy          1 MKTLFLGVTLGLAAA-------LSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVS--- 50
              ||:| | |||    |       | |  ||: ::| |::|| |  :          |:|
Db          1 MKSLLLTVTLSSLVATLQTYDDLPFISEEDKLSGVWFIKATVSQR--------REVEGET 52

Qy         51 ----PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPG 106
                  |:| |     | ||    |   :  ||   | :::|||||::||: |  | |: :||
Db         53 LVAFPIKFTCPEEGTLELRHTLASKGECINVGIRLQRTEEPGQYSAFWGHTLFYIYDLPV 112

Qy        107 TDDYVFYCKDQRRGGLRYMGKLVG 130
                | |: ||:      :   | |:|
Db        113 KDHYIIYCESHPFQKISQFGYLIG 136
```

RESULT 7
A33672
late lactation protein precursor - tammar wallaby
C;Species: Macropus eugenii (tammar wallaby)
C;Date: 09-Mar-1990 #sequence_revision 09-Mar-1990 #text_change 09-Jul-2004
C;Accession: A33672
R;Collet, C.; Joseph, R.; Nicholas, K.
Biochem. Biophys. Res. Commun. 164, 1380-1383, 1989
A;Title: Molecular cloning and characterization of a novel marsupial milk protein gene.
A;Reference number: A33672; MUID:90073674; PMID:2590207
A;Accession: A33672
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-176 <COL>
A;Cross-references: UNIPROT:P20462; GB:X15213; NID:g1147; PIDN:CAA33283.1; PID:g1148
C;Superfamily: lipocalin; lipocalin homology
F;24-171/Domain: lipocalin homology <LIP>

Query Match 23.8%; Score 186.5; DB 2; Length 176;
Best Local Similarity 31.9%; Pred. No. 1.7e-11;
Matches 44; Conservative 31; Mismatches 54; Indels 9; Gaps 4;

```
Qy          1 MKTLFLGVTLGLAAAL---SFTLEE-EDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTA 56
              |: ||| ::| | : :     |   | :   ||:||: : |||:|||  || :||: :|
Db          1 MRVLFLTISLSLFSIIHADDFAFSEFKPSEGTYYVQVIAVDKEFPEDEIPRDISPLTITY 60

Qy         57 LGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDD---YVFY 113
              |  | :|| ||  ::: | :  : : | :|| | :     | | :: :   | :   ::
Db         61 LNNGKMEAKFTVKKDNNCEEINLTLEKIDEPRKITT--TRHLHHICDTVRTSEEKYWILS 118

Qy        114 CKDQRRGGLRYMGKLVGP 131
              |  : :|      :||||
Db        119 CVREFQGTQIREAELVGP 136
```

RESULT 8
S51802
vomeronasal secretory protein I precursor - mouse
N;Alternate names: probable pheromone carrier VNSP I
C;Species: Mus musculus (house mouse)
C;Date: 30-Apr-1999 #sequence_revision 30-Apr-1999 #text_change 09-Jul-2004
C;Accession: S51802
R;Miyawaki, A.; Matsushita, F.; Ryo, Y.; Mikoshiba, K.
EMBO J. 13, 5835-5842, 1994
A;Title: Possible pheromone-carrier function of two lipocalin proteins in the vomeronas
A;Reference number: S51803; MUID:95112792; PMID:7813422
A;Accession: S51802
A;Status: preliminary; nucleic acid sequence not shown
A;Molecule type: mRNA
A;Residues: 1-182 <MIY>
A;Cross-references: UNIPROT:Q62471; EMBL:D38580
C;Superfamily: lipocalin; lipocalin homology
C;Keywords: carrier protein; glycoprotein
F;26-168/Domain: lipocalin homology <LIP>

Query Match 21.9%; Score 171; DB 2; Length 182;
Best Local Similarity 27.9%; Pred. No. 6.7e-10;
Matches 38; Conservative 31; Mismatches 57; Indels 10; Gaps 2;

```
Qy          1 MKTLFLGVTLGLAAALS------FTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKV 54
              |: | | ::  | | |           : :| |::||:|  : | | :    ||||: :
Db          1 MRALLLIISFCLVAVLQAQDSSFLAFNNGNFSGKWFLKALVSEDDIPIN----KVSPMLI 56

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
                |  |::| : | |  |:|::   :: ||: ||:: |: |:  : :|       |: ||
Db         57 LVLNNGDIELSITHMIYDQCLEVTTILEKTDVPGQYLAFEGKTHLQVQLSSVKGHYMLYC 116

Qy        115 KDQRRGGLRYMGKLVG 130
              :  |    | :|:|
Db        117 DGEIEGMRFLMTQLIG 132
```

RESULT 9
A28561
late lactation protein A - tammar wallaby (fragments)
C;Species: Macropus eugenii (tammar wallaby)
C;Date: 19-Nov-1988 #sequence_revision 19-Nov-1988 #text_change 09-Jul-2004
C;Accession: A28561
R;Nicholas, K.R.; Messer, M.; Elliott, C.; Maher, F.; Shaw, D.C.

```
Biochem. J. 241, 899-904, 1987
A;Title: A novel whey protein synthesized only in late lactation by the mammary gland fr
A;Reference number: A28561; MUID:87241271; PMID:3109381
A;Accession: A28561
A;Molecule type: protein
A;Residues: 1-85 <NIC>
A;Cross-references: UNIPROT:P20462
C;Superfamily: lipocalin; lipocalin homology

  Query Match             17.6%;  Score 138;  DB 2;  Length 85;
  Best Local Similarity   40.4%;  Pred. No. 6.7e-07;
  Matches   23;  Conservative   15;  Mismatches   19;  Indels    0;  Gaps    0;

Qy         27 GTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDRCIQKKILMRK 83
              ||:||: : |||:||||  || :||: :: |  | :|| ||  ::: | :  : : |
Db         13 GTYYVQVIAVDKEFPEDEIPRDISPLTISYLNNGKMEAKFTVKKDNNCEEINLTLEK 69


RESULT 10
S25465
lipocalin - giant toad
C;Species: Bufo marinus (giant toad)
C;Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 09-Jul-2004
C;Accession: A44456; I50117; S25465
R;Achen, M.G.; Harms, P.J.; Thomas, T.; Richardson, S.J.; Wettenhall, R.E.; Schreiber, G
J. Biol. Chem. 267, 23170-23174, 1992
A;Title: Protein synthesis at the blood-brain barrier. The major protein secreted by amp
A;Reference number: A44456; MUID:93054646; PMID:1385415
A;Accession: A44456
A;Status: preliminary
A;Molecule type: mRNA; protein
A;Residues: 1-183 <AC2>
A;Cross-references: UNIPROT:Q01584; GB:L06806; NID:g211032; PIDN:AAA48554.1; PID:g211033
A;Experimental source: choroid plexus
A;Note: sequence extracted from NCBI backbone (NCBIP:118239)
C;Superfamily: lipocalin; lipocalin homology
F;28-179/Domain: lipocalin homology <LIP>

  Query Match             15.6%;  Score 122;  DB 2;  Length 183;
  Best Local Similarity   29.3%;  Pred. No. 6.3e-05;
  Matches   36;  Conservative   20;  Mismatches   53;  Indels   14;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALSF--------TLEEEDITGTWYVKAMVVDKD-FPEDRRPRKVSP 51
              || | |   |   :||           :|: | | ||   :  : : |   ::  |:
Db          1 MKGLVLSFALVALSALCVYGDVPIQPDFQEDKILGKWYGIGLASNSNWFQSKKQQLKMCT 60

Qy         52 VKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSA----YGGRKLIYLQELPGT 107
                :|    |||:   || : ||| :| :   |||:||:| :    ||   :| : |
Db         61 TVITPTADGNLDVVATFPKLDRCEKKSMTYIKTEQPGRFLSKSPRYGSDHVIRVVE-SNY 119

Qy        108 DDY 110
               |:|
Db        120 DEY 122


RESULT 11
S52354
gene cpl-1 protein - African clawed frog
C;Species: Xenopus laevis (African clawed frog)
C;Date: 08-May-1995 #sequence_revision 21-Jul-1995 #text_change 09-Jul-2004
C;Accession: S52354
R;Engel, E.; Lepperdinger, G.; Richter, K.
submitted to the EMBL Data Library, February 1995
A;Description: An mRNA expressed in the anterior-most part of the neural plate encodes a
A;Reference number: S52354
A;Accession: S52354
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-184 <ENG>
A;Cross-references: UNIPROT:Q91721; EMBL:X84414; NID:g666120; PIDN:CAA59132.1; PID:g6661
C;Superfamily: lipocalin; lipocalin homology
F;29-180/Domain: lipocalin homology <LIP>

  Query Match             15.4%;  Score 120.5;  DB 2;  Length 184;
  Best Local Similarity   26.1%;  Pred. No. 9e-05;
  Matches   35;  Conservative   26;  Mismatches   58;  Indels   15;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALSFT---------LEEEDITGTWYVKAMVVDKDFPEDRRPR-KVS 50
              |  : | ::|:|  / :           ::| : | ||   :  : :: :||:   |:
Db          1 MMRILLALSLGVACCSLWVGAEVQVQPDFQKEKVLGKWYGIGLASNSNWFKDRKSHMKMC 60

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSA----YGGRKLIYLQELPG 106
                :|    |||| | |: : |||  | :   |||: | | |    ||    : : |
Db         61 TTIITPTADGNLEVTATYPKMDRCETKSMTYFKTEQLGGFRAKSPRYGSEHDMRVVE-TN 119

Qy        107 TDDYVFYCKDQRRG 120
               |:|:     : :|
Db        120 YDEYILMYTVKTKG 133


RESULT 12
S33876
beta-lactoglobulin III - cat
C;Species: Felis silvestris catus (domestic cat)
C;Date: 22-Nov-1993 #sequence_revision 03-Nov-1995 #text_change 09-Jul-2004
C;Accession: S33876; E60525
R;Halliday, J.A.; Bell, K.; McAndrew, K.; Shaw, D.C.
Protein Seq. Data Anal. 5, 201-205, 1993
A;Title: Feline beta-lactoglobulins I, II and III, and canine beta-lactoglobulins I and
 cat and dog.
A;Reference number: S33875
A;Accession: S33876
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-162 <HAL>
A;Cross-references: UNIPROT:P33688
A;Note: 162-Val was also found
R;Halliday, J.A.; Bell, K.; McKenzie, H.A.; Shaw, D.C.
Comp. Biochem. Physiol. B 95, 773-779, 1990
A;Title: Feline whey proteins: identification, isolation and initial characterization of
A;Reference number: A60525; MUID:90263403; PMID:2344734
A;Accession: E60525
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-24 <HA2>
C;Superfamily: lipocalin; lipocalin homology
C;Keywords: mammary gland; milk
F;10-160/Domain: lipocalin homology <LIP>
F;66-160,106-119/Disulfide bonds: #status predicted

  Query Match             15.1%;  Score 118;  DB 2;  Length 162;
  Best Local Similarity   30.8%;  Pred. No. 0.00014;
  Matches   33;  Conservative   20;  Mismatches   32;  Indels   22;  Gaps    5;

Qy         20 LEEEDITGTWYVKAM------VVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDR 73
              |: : : |||:  ||      ::| ::      | :|   ::        |||       : |
Db         10 LDLQKVAGTWHSMAMAASDISLLDSEY----APLRVYVQELRPTPRDNLEIILRKWEQKR 65

Qy         74 CIQKKILMRKTEEPGKFSAYGGRKLIYLQE----LPGTD--DYVFYC 114
              |:||||| :||| | :|      |: || |    :  ||  :|:|:|
Db         66 CVQKKILAQKTELPAEF------KISYLDENELIVLDTDYENYLFFC 106


RESULT 13
A29699
beta-lactoglobulin - eastern gray kangaroo
C;Species: Macropus giganteus (eastern gray kangaroo)
C;Date: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
C;Accession: A29699
R;Godovac-Zimmermann, J.; Shaw, D.
Biol. Chem. Hoppe-Seyler 368, 879-886, 1987
A;Title: The primary structure, binding site and possible function of beta-lactoglobulin
A;Reference number: A29699; MUID:87299024; PMID:3620116
A;Accession: A29699
A;Molecule type: protein
A;Residues: 1-155 <GOD>
```

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A;Cross-references: UNIPROT:P11944
C;Superfamily: lipocalin; lipocalin homology
F;10-155/Domain: lipocalin homology <LIP>

  Query Match             13.9%;  Score 108.5;  DB 2;  Length 155;
  Best Local Similarity   28.7%;  Pred. No. 0.0012;
  Matches   27;  Conservative   18;  Mismatches   44;  Indels    5;  Gaps    3;

Qy         23 EDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDRCIQKKILMR 82
              |   |:||::      :|        :  | :|    ||||      : |||::||:|::
Db         13 EKFVGSWYLREAAKTMEFSIPLFDMDIKEVNLTP--EGNLELVL-LEKTDRCVEKKLLLK 69

Qy         83 KTEEPGKFSAYGGRKLIYLQELPGT--DDYVFYC 114
              ||::| :|  |   :  |  :  |  | |  :|
Db         70 KTKKPTEFEIYISSESSYTFCVMETDYDSYFLFC 103


RESULT 14
LGGT
beta-lactoglobulin precursor - goat
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 17-May-1985 #sequence_revision 12-Apr-1996 #text_change 09-Jul-2004
C;Accession: A03220; S14507; S42800; S42801
R;Preaux, G.; Braunitzer, G.; Schrank, B.; Stangl, A.
Hoppe-Seyler's Z. Physiol. Chem. 360, 1595-1604, 1979
A;Title: The amino acid sequence of goat beta-lactoglobulin.
A;Reference number: A91682; MUID:80070611; PMID:511095
A;Accession: A03220
A;Molecule type: protein
A;Residues: 19-180 <PRE>
A;Cross-references: UNIPROT:P02756
R;Folch, J.M.; Coll, A.; Sanchez, A.
submitted to the EMBL Data Library, March 1991
A;Reference number: S14507
A;Accession: S14507
A;Molecule type: mRNA
A;Residues: 1-180 <FOL>
A;Cross-references: EMBL:X58471; NID:g967; PIDN:CAA41385.1; PID:g968
R;Kim, J.
submitted to the EMBL Data Library, January 1993
A;Reference number: S42800
A;Accession: S42800
A;Molecule type: mRNA
A;Residues: 1-180 <KIM>
A;Cross-references: EMBL:Z19569; NID:g437751; PIDN:CAA79623.1; PID:g437752
A;Accession: S42801
A;Molecule type: mRNA
A;Residues: 1-32 <KI2>
A;Cross-references: EMBL:Z19570; NID:g437753; PIDN:CAA79624.1; PID:g437754
C;Comment: Under physiological conditions beta-lactoglobulin exists as an equilibrium mi
C;Superfamily: lipocalin; lipocalin homology
C;Keywords: milk
F;1-18/Domain: signal sequence #status predicted <SIG>
F;19-180/Product: beta-lactoglobulin #status predicted <MAT>
F;28-178/Domain: lipocalin homology <LIP>
F;84-178,124-137/Disulfide bonds: #status predicted

  Query Match             13.7%;  Score 107;  DB 1;  Length 180;
  Best Local Similarity   28.5%;  Pred. No. 0.0021;
  Matches   37;  Conservative   16;  Mismatches   59;  Indels   18;  Gaps    5;

Qy          1 MKTLFLGVTLGLAAALSFT--------LEEEDITGTWYVKAMVVDKDFPEDRR--PRKVS 50
              || | | : | ||  :           |: : : ||||  ||         | :  | :|
Db          1 MKCLLLALGLALACGIQAIIVTQTMKGLDIQKVAGTWYSLAMAASDISLLDAQSAPLRVY 60

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPG--KFSAYGGRKLIYLQELPGTD 108
                ::     ||||           | ||||:  ||: |   |  |     |:: |      ||
Db         61 VEELKPTPEGNLEILLQKWENGECAQKKIIAEKTKIPAVFKIDALNENKVLVLD----TD 116

Qy        109 --DYVFYCKD 116
                |: :| :
Db        117 YKKYLLFCME 126


RESULT 15
S33877
beta-lactoglobulin I - dog
C;Species: Canis lupus familiaris (dog)
C;Date: 02-Dec-1993 #sequence_revision 01-Sep-1995 #text_change 09-Jul-2004
C;Accession: S33877; A61590
R;Halliday, J.A.; Bell, K.; McAndrew, K.; Shaw, D.C.
Protein Seq. Data Anal. 5, 201-205, 1993
A;Title: Feline beta-lactoglobulins I, II and III, and canine beta-lactoglobulins I and
 cat and dog.
A;Reference number: S33875
A;Accession: S33877
A;Status: preliminary
A;Molecule type: protein
A;Residues: 1-161 <HAL>
A;Cross-references: UNIPROT:P33685
R;Pervaiz, S.; Brew, K.
Arch. Biochem. Biophys. 246, 846-854, 1986
A;Title: Purification and characterization of the major whey proteins from the milks of
le (Canis familiaris).
A;Reference number: A61590; MUID:86214061; PMID:3707136
A;Accession: A61590
A;Status: preliminary
A;Molecule type: protein
A;Residues: 'L',2-20,'A',22-26 <PER>
C;Superfamily: lipocalin; lipocalin homology
C;Keywords: mammary gland; milk
F;10-159/Domain: lipocalin homology <LIP>
F;66-159,106-119/Disulfide bonds: #status predicted

  Query Match             13.6%;  Score 106.5;  DB 2;  Length 161;
  Best Local Similarity   28.7%;  Pred. No. 0.0021;
  Matches   31;  Conservative   20;  Mismatches   40;  Indels   17;  Gaps    5;

Qy         19 TLEEED---ITGTWYVKAMVVD--KDFPEDRRPRKVSPVKVTALGGGNLEATFTFMREDR 73
              |:|: |   : |||:  ||          :  | :|   ::       |||       : |
Db          6 TMEDLDLQKVAGTWHSMAMAASDISLLDSETAPLRVYIQELRPTPQDNLEIVLRKWEDGR 65

Qy         74 CIQKKILMRKTEEPGKFSAYGGRKLIYLQE----LPGT--DDYVFYCK 115
              | ::|:|  ||| | :|      |: |::|    |  |  |:|:|:|:
Db         66 CAEQKVLAEKTEVPAEF------KINYVEENQIFLLDTDYDNYLFFCE 107


Search completed: June  7, 2005, 14:40:16
Job time : 40 secs
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GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: June 7, 2005, 14:29:40 ; Search time 177 Seconds
(without alignments)
422.393 Million cell updates/sec

Title: US-10-049-372-4
Perfect score: 782
Sequence: 1 MKTLFLGVTLGLAAALSFTL.....KLVGPCRCPHVGSPGHLTCR 146

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1612378 seqs, 512079187 residues

Total number of hits satisfying chosen parameters: 1612378

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : UniProt_03:*
1: uniprot_sprot:*
2: uniprot_trembl:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	679	86.8	170	1	OBPA_HUMAN	Q9ny56 homo sapien
2	623	79.7	170	1	OBPB_HUMAN	Q9nph6 homo sapien
3	284.5	36.4	176	2	Q63613	Q63613 rattus norv
4	274.5	35.1	176	1	VEGP_HUMAN	P31025 homo sapien
5	244	31.2	174	1	ALL1_CANFA	O18873 canis famil
6	239	30.6	177	1	VEG2_RAT	P41244 rattus norv
7	238.5	30.5	176	1	VEGP_PIG	P53715 sus scrofa
8	238.5	30.5	176	2	Q866S8	Q866s8 sus scrofa
9	236	30.2	176	2	Q8K1H9	Q8k1h9 mus musculu
10	232	29.7	177	1	VEG1_RAT	P20289 rattus norv
11	218.5	27.9	174	1	LLPB_MACEU	Q8sq30 macropus eu
12	205	26.2	185	1	VNS2_MOUSE	Q62472 mus musculu
13	199.5	25.5	176	1	LLP_TRIVU	Q29144 trichosurus
14	188.5	24.1	176	2	Q71RT0	Q71rt0 macropus eu
15	186.5	23.8	176	1	LLPA_MACEU	P20462 macropus eu
16	171	21.9	182	1	VNS1_MOUSE	Q62471 mus musculu
17	163	20.8	159	2	Q9JLX6	Q9jlx6 rattus norv
18	128.5	16.4	184	2	Q6DKB2	Q6dkb2 xenopus lae
19	123	15.7	140	2	Q6JVF0	Q6jvf0 mus musculu
20	122	15.6	183	1	LIPO_BUFMA	Q01584 bufo marinu
21	121.5	15.5	184	2	Q92136	Q92136 xenopus lae
22	121	15.5	174	1	LACB_MACEU	Q29614 macropus eu
23	120.5	15.4	184	2	Q91721	Q91721 xenopus lae
24	119.5	15.3	178	1	MUPL_MOUSE	Q9d267 mus musculu
25	118	15.1	162	1	LACC_FELCA	P33688 felis silve
26	117	15.0	183	2	Q8AW88	Q8aw88 hyla japoni
27	116	14.8	191	1	PGHD_SHEEP	Q9xsm0 ovis aries
28	115.5	14.8	178	2	Q80ZC4	Q80zc4 mus musculu
29	108.5	13.9	155	1	LACB_MACGI	P11944 macropus gi
30	108	13.8	174	1	LACB_TRIVU	Q29146 trichosurus
31	107.5	13.7	191	1	PGHD_BOVIN	O02853 bos taurus
32	107	13.7	180	1	LACB_CAPHI	P02756 capra hircu
33	106.5	13.6	161	1	LACA_CANFA	P33685 canis famil
34	105	13.4	163	1	LACA_EQUAS	P19647 equus asinu
35	105	13.4	181	1	LACA_HORSE	P07380 equus cabal
36	104.5	13.4	189	1	PGHD_PIG	Q29095 sus scrofa
37	103	13.2	161	1	LACC_CANFA	P33686 canis famil
38	103	13.2	180	1	LACB_BUBBU	P02755 bubalus bub
39	102	13.0	185	2	Q8QFM7	Q8qfm7 gallus gall
40	102	13.0	191	1	PGHD_CANFA	Q9xs65 canis famil
41	102	13.0	191	1	PGHD_FELCA	Q29487 felis silve
42	101	12.9	180	1	LACB_HORSE	P02758 equus cabal
43	101	12.9	180	1	LACB_SHEEP	P67976 ovis aries
44	100	12.8	186	2	O77511	O77511 papio cynoc
45	99	12.7	178	1	LACB_BOVIN	P02754 bos taurus

ALIGNMENTS

RESULT 1
OBPA_HUMAN
ID OBPA_HUMAN STANDARD; PRT; 170 AA.
AC Q9NY56; Q9NY50; Q9NY53; Q9NY54; Q9NY55;
DT 28-FEB-2003 (Rel. 41, Created)
DT 28-FEB-2003 (Rel. 41, Last sequence update)
DT 05-JUL-2004 (Rel. 44, Last annotation update)
DE Odorant-binding protein 2a precursor (OBPIIa).
GN Name=OBP2A;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A. (ISOFORMS AA; AB; AD AND AG).
RX MEDLINE=20076326; PubMed=10607840; DOI=10.1093/hmg/9.2.289;
RA Lacazette E., Gachon A.-M., Pitiot G.;
RT "A novel human odorant-binding protein gene family resulting from
RT genomic duplicons at 9q34: differential expression in the oral and
RT genital spheres.";
RL Hum. Mol. Genet. 9:289-301(2000).
CC -!- FUNCTION: Probably binds and transports small hydrophobic volatile
CC molecules.
CC -!- SUBCELLULAR LOCATION: Secreted (Probable).
CC -!- ALTERNATIVE PRODUCTS:
CC Event=Alternative splicing; Named isoforms=4;
CC Name=Aa;
CC IsoId=Q9NY56-1; Sequence=Displayed;
CC Name=Ab;
CC IsoId=Q9NY56-2; Sequence=VSP_003136;
CC Name=Ad;
CC IsoId=Q9NY56-3; Sequence=VSP_003135;
CC Name=Ag;
CC IsoId=Q9NY56-4; Sequence=VSP_003137;
CC -!- TISSUE SPECIFICITY: Strongly expressed in the nasal structures,
CC salivary and lachrymal glands, and lung.
CC -!- SIMILARITY: Belongs to the lipocalin family.
CC ---

CC ---
DR EMBL; AJ251021; CAB71318.1; -.
DR EMBL; AJ251022; CAB71319.1; -.
DR EMBL; AJ251023; CAB71320.1; -.
DR EMBL; AJ251024; CAB71321.1; -.
DR EMBL; AJ251029; CAB71326.1; -.
DR Genew; HGNC:23380; OBP2A.
DR MIM; 164320; -.
DR GO; GO:0005549; F:odorant binding; NAS.

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DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Alternative splicing; Lipocalin; Olfaction; Signal; Transport.
FT   SIGNAL       1     15       Potential.
FT   CHAIN       16    170       Odorant-binding protein 2a.
FT   DISULFID    74    166       By similarity.
FT   VARSPLIC    25    129       ITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGNLEAT
FT                               FTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPG
FT                               TDDYVFYCKDQRRGGLRYMGKLV -> EGESVHPEENPDAE
FT                               DGGAWQIQRLWGQEAHIPAGAARDGRLRLLLLQRPAPWGPAL
FT                               HGKACGICSLQGRAAVPTLAHLATSPA (in isoform
FT                               Ad).
FT                               /FTId=VSP_003135.
FT   VARSPLIC   131    170       RNPNTNLEALEEFKKLVQHKGLSEEDIFMPLQTGSCVLEH
FT                               -> PCRCPHVGSPGHLTCR (in isoform Ab).
FT                               /FTId=VSP_003136.
FT   VARSPLIC   130    170       GRNPNTNLEALEEFKKLVQHKGLSEEDIFMPLQTGSCVLEH
FT                               -> ASAPCRAVPLSPRRLTWPPHLQVGILIPTWRPWKNLRN
FT                               WCSTRDSRRRTFSCPCRREAAFSNTRQPPGLHLQSPPYHQT
FT                               QSPDHLDLPSSHDPSLLPPT (in isoform Ag).
FT                               /FTId=VSP_003137.
FT   CONFLICT    90     90       F -> Y (in Ref. 1; CAB71326).
FT   CONFLICT   149    149       H -> R (in Ref. 1; CAB71320).
FT   CONFLICT   159    159       M -> T (in Ref. 1; CAB71326).
SQ   SEQUENCE   170 AA;  19318 MW;  391F55E2E3629E75 CRC64;

  Query Match             86.8%;  Score 679;  DB 1;  Length 170;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-64;
  Matches  130;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120

Qy        121 GLRYMGKLVG 130
              ||||||||||
Db        121 GLRYMGKLVG 130


RESULT 2
OBPB_HUMAN
ID   OBPB_HUMAN     STANDARD;      PRT;   170 AA.
AC   Q9NPH6; Q9NY51; Q9NY52;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Odorant-binding protein 2b precursor (OBPIIb) (UNQ653/PRO1283).
GN   Name=OBP2B;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A. (ISOFORMS BA; BB AND BG).
RX   MEDLINE=20076326; PubMed=10607840; DOI=10.1093/hmg/9.2.289;
RA   Lacazette E., Gachon A.-M., Pitiot G.;
RT   "A novel human odorant-binding protein gene family resulting from
RT   genomic duplicons at 9q34: differential expression in the oral and
RT   genital spheres.";
RL   Hum. Mol. Genet. 9:289-301(2000).
RN   [2]
RP   SEQUENCE FROM N.A. (ISOFORM BA).
RX   MEDLINE=22887296; PubMed=12975309; DOI=10.1101/gr.1293003;
RA   Clark H.F., Gurney A.L., Abaya E., Baker K., Baldwin D., Brush J.,
RA   Chen J., Chow B., Chui C., Crowley C., Currell B., Deuel B., Dowd P.,
RA   Eaton D., Foster J., Grimaldi C., Gu Q., Hass P.E., Heldens S.,
RA   Huang A., Kim H.S., Klimowski L., Jin Y., Johnson S., Lee J.,
RA   Lewis L., Liao D., Mark M., Robbie E., Sanchez C., Schoenfeld J.,
RA   Seshagiri S., Simmons L., Singh J., Smith V., Stinson J., Vagts A.,
RA   Vandlen R., Watanabe C., Wieand D., Woods K., Xie M.-H., Yansura D.,
RA   Yi S., Yu G., Yuan J., Zhang M., Zhang Z., Goddard A., Wood W.I.,
RA   Godowski P., Gray A.;
RT   "The secreted protein discovery initiative (SPDI), a large-scale
RT   effort to identify novel human secreted and transmembrane proteins: a
RT   bioinformatics assessment.";
RL   Genome Res. 13:2265-2270(2003).
CC   -!- FUNCTION: Probably binds and transports small hydrophobic volatile
CC       molecules.
CC   -!- SUBCELLULAR LOCATION: Secreted (Probable).
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC       Name=Ba;
CC         IsoId=Q9NPH6-1; Sequence=Displayed;
CC       Name=Bb;
CC         IsoId=Q9NPH6-2; Sequence=VSP_003138;
CC       Name=Bg;
CC         IsoId=Q9NPH6-3; Sequence=VSP_003139;
CC   -!- TISSUE SPECIFICITY: Strongly expressed in genital sphere organs
CC       such as the prostate and mammary glands.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AJ251025; CAB71322.1; -.
DR   EMBL; AJ251026; CAB71323.1; -.
DR   EMBL; AJ251027; CAB71324.1; -.
DR   EMBL; AJ251028; CAB71325.1; -.
DR   EMBL; AY358981; AAQ89340.1; -.
DR   Genew; HGNC:23381; OBP2B.
DR   MIM; 604606; -.
DR   GO; GO:0005549; F:odorant binding; NAS.
DR   GO; GO:0007635; P:chemosensory behavior; TAS.
DR   GO; GO:0007608; P:perception of smell; NAS.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Alternative splicing; Lipocalin; Olfaction; Signal; Transport.
FT   SIGNAL       1     15       Potential.
FT   CHAIN       16    170       Odorant-binding protein 2b.
FT   DISULFID    74    166       By similarity.
FT   VARSPLIC    93    170       YGGRKLMYLQELPRRDHYIFYCKDQHHGGLLHMGKLVGRNS
FT                               DTNREALEEFKKLVQRKGLSEEDIFTPLQTGSCVPEH ->
FT                               CLSAVEMDQITPALWEALAIDTLRKLRIGTRRPRIRWGQEA
FT                               HVPAGAAQEGPLHLLLQRPAPWGPAPHGKACG (in
FT                               isoform Bb).
FT                               /FTId=VSP_003138.
FT   VARSPLIC    25    170       ITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGGKLEAT
FT                               FTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPR
FT                               RDHYIFYCKDQHHGGLLHMGKLVGRNSDTNREALEEFKKLV
FT                               QRKGLSEEDIFTPLQTGSCVPEH -> EGGSVHPEENPDAE
FT                               DGGAWQIQRLWGQEAHIPAGAAQEGPLHLLLQRPAPWGPAP
FT                               HGKACG (in isoform Bg).
FT                               /FTId=VSP_003139.
SQ   SEQUENCE   170 AA;  19456 MW;  344FBC37E70739C1 CRC64;

  Query Match             79.7%;  Score 623;  DB 1;  Length 170;
  Best Local Similarity   91.5%;  Pred. No. 1.3e-58;
  Matches  119;  Conservative    4;  Mismatches    7;  Indels    0;  Gaps    0;

Qy          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db          1 MKTLFLGVTLGLAAALSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTALGGG 60

Qy         61 NLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQRRG 120
              |||||||||||||||||||||||||||||:||||||||:||||||  | |:||||||  |
Db         61 KLEATFTFMREDRCIQKKILMRKTEEPGKYSAYGGRKLMYLQELPRRDHYIFYCKDQHHG 120

Qy        121 GLRYMGKLVG 130
               || :||||||
Db        121 GLLHMGKLVG 130


RESULT 3
Q63613
ID   Q63613      PRELIMINARY;      PRT;   176 AA.
AC   Q63613;
DT   01-NOV-1996 (TrEMBLrel. 01, Created)
DT   01-NOV-1996 (TrEMBLrel. 01, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Odorant-binding protein.
GN   Name=RY2G12;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Fisher; TISSUE=Olfactory mucosa;
RX   MEDLINE=92031476; PubMed=1931961;
RA   Dear T.N., Campbell K.D., Rabbitts T.H.;
RT   "Molecular cloning of putative odorant-binding and odorant-
RT   metabolizing proteins.";
RL   Biochemistry 30:10376-10382(1991).
DR   EMBL; M76734; AAA42307.1; -.
DR   PIR; A40464; A40464.
DR   GO; GO:0005215; F:transporter activity; IEA.
DR   GO; GO:0006810; P:transport; IEA.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PRINTS; PR01175; VNEBNERGLAND.
SQ   SEQUENCE   176 AA;  20171 MW;  3328D11B90FD91BF CRC64;

  Query Match             36.4%;  Score 284.5;  DB 2;  Length 176;
  Best Local Similarity   44.4%;  Pred. No. 3.1e-22;
  Matches   60;  Conservative   21;  Mismatches   49;  Indels    5;  Gaps    2;

Qy          1 MKTLFLGV-TLGLAAALSFTL----EEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVT 55
              ||:  | |  ||| | |         ::|| :| || || | |::  : :|| || |: ||
Db          1 MKSRLLTVLLLGLMAVLKAQEAPPDDQEDFSGKWYTKATVCDRNHTDGKRPMKVFPMTVT 60

Qy         56 ALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCK 115
              || ||:||   ||  :  |  ::| | ||:||||:: : |:|  | :|:|  | |:|| |
Db         61 ALEGGDLEVRITFRGKGHCHLRRITMHKTDEPGKYTTFKGKKTFYTKEIPVKDHYIFYIK 120

Qy        116 DQRRGGLRYMGKLVG 130
               || |    |||||
Db        121 GQRHGKSYLKGKLVG 135


RESULT 4
VEGP_HUMAN
ID   VEGP_HUMAN     STANDARD;      PRT;   176 AA.
AC   P31025;
DT   01-JUL-1993 (Rel. 26, Created)
DT   01-JUL-1993 (Rel. 26, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Von Ebner's gland protein precursor (VEG protein) (Tear prealbumin)
DE   (TP) (Tear lipocalin) (Lipocalin 1).
GN   Name=LCN1; Synonyms=VEGP;
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Tongue;
RX   MEDLINE=93176795; PubMed=7679926;
RA   Blaeker M., Kock K., Ahlers C., Buck F., Schmale H.;
RT   "Molecular cloning of human von Ebner's gland protein, a member of the
RT   lipocalin superfamily highly expressed in lingual salivary glands.";
RL   Biochim. Biophys. Acta 1172:131-137(1993).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Tears;
RX   MEDLINE=93015903; PubMed=1400345;
RA   Redl B., Holzfeind P., Lottspeich F.;
RT   "cDNA cloning and sequencing reveals human tear prealbumin to be a
RT   member of the lipophilic-ligand carrier protein superfamily.";
RL   J. Biol. Chem. 267:20282-20287(1992).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Tears;
RX   MEDLINE=93272888; PubMed=8500570; DOI=10.1006/exer.1993.1075;
RA   Lassagne H., Gachon A.-M.;
RT   "Cloning of a human lacrimal lipocalin secreted in tears.";
RL   Exp. Eye Res. 56:605-609(1993).
RN   [4]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=94156196; PubMed=8112601; DOI=10.1016/0378-1119(94)90752-8;
RA   Holzfeind P., Redl B.;
RT   "Structural organization of the gene encoding the human lipocalin tear
RT   prealbumin and synthesis of the recombinant protein in Escherichia
RT   coli.";
RL   Gene 139:177-183(1994).
RN   [5]
RP   SEQUENCE OF 19-38.
RC   TISSUE=Nasal mucus;
RA   Scalfari F., Castagna M., Fattori B., Andreini I., Maremmani C.,
RA   Pelosi P.;
RT   "Expression of a lipocalin in human nasal mucosa.";
RL   Comp. Biochem. Physiol. 118B:819-824(1997).
CC   -!- FUNCTION: Could play a role in taste reception. Could be necessary
CC       for the concentration and delivery of sapid molecules in the
CC       gustatory system.
CC   -!- SUBUNIT: Homodimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Mainly expressed in lachrymal and salivary
CC       glands. Also expressed in the prostate.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X62418; CAA44284.1; -.
DR   EMBL; X67647; CAA47889.1; -.
DR   EMBL; L14927; AAA18633.1; -.
DR   EMBL; M90424; AAA61845.1; -.
DR   PIR; A44029; LCHUL.
DR   Genew; HGNC:6525; LCN1.
DR   MIM; 151675; -.
DR   GO; GO:0004869; F:cysteine protease inhibitor activity; TAS.
DR   GO; GO:0019735; P:antimicrobial humoral response (sensu Verte. . .; TAS.
DR   GO; GO:0006508; P:proteolysis and peptidolysis; TAS.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Direct protein sequencing; Lipocalin; Signal; Transport.
FT   SIGNAL       1     18
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FT   CHAIN        19    176       Von Ebner's gland protein.
FT   DISULFID     79    171       By similarity.
SQ   SEQUENCE   176 AA;  19250 MW;  0DDBF124C8C78CB8 CRC64;

  Query Match             35.1%;  Score 274.5;  DB 1;  Length 176;
  Best Local Similarity   42.3%;  Pred. No. 3.7e-21;
  Matches   58;  Conservative   27;  Mismatches   41;  Indels   11;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAALS----FTLEEE--DITGTWYVKAMVVDKDFPEDRRPRKVSPVKV 54
              || | | |:||| |||        :||  |::||||:||| ||::|||      |:|: :
Db          1 MKPLLLAVSLGLIAALQAHHLLASDEEIQDVSGTWYLKAMTVDREFPE-MNLESVTPMTL 59

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
              | | ||||||  | :   || : | :: ||:||||::| ||: : |:      | |:|||
Db         60 TTLEGGNLEAKVTMLISGRCQEVKAVLEKTDEPGKYTADGGKHVAYIIRSHVKDHYIFYC 119

Qy        115 KDQRRG----GLRYMGK 127
              : :  |    |:: :|:
Db        120 EGELHGKPVRGVKLVGR 136


RESULT 5
ALL1_CANFA
ID   ALL1_CANFA     STANDARD;      PRT;   174 AA.
AC   O18873;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Major allergen Can f 1 precursor (Allergen Dog 1).
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=98158930; PubMed=9497502;
RA   Konieczny A., Morgenstern J.P., Bizinkauskas C.B., Lilley C.H.,
RA   Brauer A.W., Bond J.F., Aalberse R.C., Wallner B.P., Kasaian M.T.;
RT   "The major dog allergens, Can f 1 and Can f 2, are salivary lipocalin
RT   proteins: cloning and immunological characterization of the
RT   recombinant forms.";
RL   Immunology 92:577-586(1997).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Tongue epithelial tissue.
CC   -!- ALLERGEN: Causes an allergic reaction in human.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF027177; AAC48794.1; -.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Allergen; Lipocalin; Signal; Transport.
FT   SIGNAL        1     18       Potential.
FT   CHAIN        19    174       Major allergen Can f 1.
FT   DISULFID     78    169       By similarity.
FT   CARBOHYD     80     80       N-linked (GlcNAc. . .) (Potential).
SQ   SEQUENCE   174 AA;  19248 MW;  091A3025660806D5 CRC64;

  Query Match             31.2%;  Score 244;  DB 1;  Length 174;
  Best Local Similarity   35.7%;  Pred. No. 6.9e-18;
  Matches   50;  Conservative   29;  Mismatches   45;  Indels   16;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEEED----------ITGTWYVKAMVVDKDFPEDRRPRKVS 50
              ||||  |  :   | |     |: :|          ::| ||:|||  |:: ||  :|  |:
Db          1 MKTLLLTIGFSLIA----ILQAQDTPALGKDTVAVSGKWYLKAMTADQEVPE--KPDSVT 54

Qy         51 PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDY 110
              |: : |  ||||||  | :   :|    ::: || ||||::|| |::::::|  |  | |
Db         55 PMILKAQKGGNLEAKITMLTNGQCQNITVVLHKTSEPGKYTAYEGQRVVFIQPSPVRDHY 114

Qy        111 VFYCKDQRRGGLRYMGKLVG 130
              : ||: :  |    | ||:|
Db        115 ILYCEGELHGRQIRMAKLLG 134


RESULT 6
VEG2_RAT
ID   VEG2_RAT       STANDARD;      PRT;   177 AA.
AC   P41244;
DT   01-FEB-1995 (Rel. 31, Created)
DT   01-FEB-1995 (Rel. 31, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Von Ebner's gland protein 2 precursor (VEG protein 2).
GN   Name=Vegp2;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RC   STRAIN=Wistar; TISSUE=Lingual salivary gland;
RX   MEDLINE=94237155; PubMed=7514123;
RA   Kock K., Ahlers C., Schmale H.;
RT   "Structural organization of the genes for rat von Ebner's gland
RT   proteins 1 and 2 reveals their close relationship to lipocalins.";
RL   Eur. J. Biochem. 221:905-916(1994).
CC   -!- FUNCTION: Could play a role in taste reception. Could be necessary
CC       for the concentration and delivery of sapid molecules in the
CC       gustatory system.
CC   -!- SUBUNIT: Homodimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X74806; CAA52810.1; -.
DR   EMBL; X74807; CAA52811.1; -.
DR   PIR; S43647; S43647.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Direct protein sequencing; Lipocalin; Multigene family; Signal;
KW   Transport.
FT   SIGNAL        1     18       Potential.
FT   CHAIN        19    177       Von Ebner's gland protein 2.
FT   DISULFID     80    172       By similarity.
SQ   SEQUENCE   177 AA;  19699 MW;  73149ABD1F52EC15 CRC64;

  Query Match             30.6%;  Score 239;  DB 1;  Length 177;
  Best Local Similarity   37.1%;  Pred. No. 2.4e-17;
  Matches   53;  Conservative   28;  Mismatches   54;  Indels    8;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALS-----FTLEEEDITGTWYVKAMVVDKDFPEDR-RPRKVSPVKV 54
              || | |  :| | |||        | | :|::||||:||   ||: |: :     |:|:|:
Db          1 MKALLLTFSLSLLAALQAQAFPTTEENQDVSGTWYLKAAAWDKEIPDKKFGSVSVTPMKI 60

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
                | ||||:  || :   || :   :: ||:||||::|| |::::|       | |:||
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Db         61 KTLEGGNLQVKFTVLISGRCQEMSTVLEKTDEPGKYTAYSGKQVVYSIPSAVEDHYIFYY 120

Qy        115 KDQRRGGLRYMGKLVGPCRCPHV 137
              : :       : ||||  | | :
Db        121 EGKIHRHHFQIAKLVG--RNPEI 141


RESULT 7
VEGP_PIG
ID   VEGP_PIG       STANDARD;      PRT;   176 AA.
AC   P53715; O19136;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Von Ebner's gland protein precursor (VEG protein) (Tear prealbumin)
DE   (TP) (Tear lipocalin) (Lipocalin-1).
GN   Name=LCN1;
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
RX   MEDLINE=95316441; PubMed=7796060;
RA   Garibotti M., Christiansen H., Schmale H., Pelosi P.;
RT   "Porcine VEG proteins and tear prealbumins.";
RL   Chem. Senses 20:69-76(1995).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Liver;
RX   MEDLINE=98087418; PubMed=9427546; DOI=10.1016/S0378-1119(97)00454-X;
RA   Holzfeind P., Merschak P., Wojnar P., Redl B.;
RT   "Structure and organization of the porcine LCN1 gene encoding Tear
RT   lipocalin/von Ebner's gland protein.";
RL   Gene 202:61-67(1997).
CC   -!- FUNCTION: Could play a role in taste reception. Could be necessary
CC       for the concentration and delivery of sapid molecules in the
CC       gustatory system.
CC   -!- SUBUNIT: Homodimer.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; S77587; AAB34720.1; -.
DR   EMBL; U96150; AAC39166.1; -.
DR   PIR; JC6503; JC6503.
DR   HSSP; P02754; 1QG5.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Direct protein sequencing; Lipocalin; Signal; Transport.
FT   SIGNAL        1     19       Potential.
FT   CHAIN        20    176       Von Ebner's gland protein.
FT   DISULFID     80    171       By similarity.
FT   CONFLICT    136    136       G -> A (in Ref. 2).
SQ   SEQUENCE   176 AA;  19352 MW;  BB7D6D750D4AC4AB CRC64;

  Query Match             30.5%;  Score 238.5;  DB 1;  Length 176;
  Best Local Similarity   36.2%;  Pred. No. 2.7e-17;
  Matches   50;  Conservative   30;  Mismatches   47;  Indels   11;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEE--------EDITGTWYVKAMVVDKDFPEDRRPRKVSPV 52
              |: | | : ||| |||     :|        :|: | ||:|||  | : |  ::|  |:|:
Db          2 MRALLLAIGLGLVAALQ--AQEFPAVGQPLQDLLGRWYLKAMTSDPEIP-GKKPESVTPL 58

Qy         53 KVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVF 112
               || ||:|||  ||: : :|    ::::|| :|  |:|| |::::|:       | |:
Db         59 ILKALEGGDLEAQITFLIDGQCQDVTLVLKKTNQPFTFTAYDGKRVVYILPSKVKDHYIL 118

Qy        113 YCKDQRRGGLRYMGKLVG 130
              ||: :  |    | ||||
Db        119 YCEGELDGQEVRMAKLVG 136


RESULT 8
Q866S8
ID   Q866S8      PRELIMINARY;      PRT;   176 AA.
AC   Q866S8;
DT   01-JUN-2003 (TrEMBLrel. 24, Created)
DT   01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Von Ebner gland protein.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22939397; PubMed=14578123;
RA   Guiraudie G., Pageat P., Cain A.H., Madec I., Meillour P.N.;
RT   "Functional characterization of olfactory binding proteins for
RT   appeasing compounds and molecular cloning in the vomeronasal organ of
RT   pre-pubertal pigs.";
RL   Chem. Senses 28:609-619(2003).
DR   EMBL; AY177149; AAO18367.1; -.
DR   HSSP; P02754; 1QG5.
DR   GO; GO:0005215; F:transporter activity; IEA.
DR   GO; GO:0006810; P:transport; IEA.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PRINTS; PR01175; VNEBNERGLAND.
SQ   SEQUENCE   176 AA;  19368 MW;  AF7C2D750D4AC4AB CRC64;

  Query Match             30.5%;  Score 238.5;  DB 2;  Length 176;
  Best Local Similarity   36.2%;  Pred. No. 2.7e-17;
  Matches   50;  Conservative   30;  Mismatches   47;  Indels   11;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALSFTLEE--------EDITGTWYVKAMVVDKDFPEDRRPRKVSPV 52
              |: | | : ||| |||     :|        :|: | ||:|||  | : |  ::|  |:|:
Db          2 MRALLLAIGLGLVAALQ--AQEFPAVGQPLQDLLGRWYLKAMTSDPEIP-GKKPESVTPL 58

Qy         53 KVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVF 112
               || ||:|||  ||: : :|    ::::|| :|  |:|| |::::|:       | |:
Db         59 ILKALEGGDLEAQITFLIDGQCQDVTLVLKKTNQPFTFTAYDGKRVVYILPSKVKDHYIL 118

Qy        113 YCKDQRRGGLRYMGKLVG 130
              ||: :  |    | ||||
Db        119 YCEGELDGQEVRMAKLVG 136


RESULT 9
Q8K1H9
ID   Q8K1H9      PRELIMINARY;      PRT;   176 AA.
AC   Q8K1H9;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
DE   CDNA sequence BC027556 (Lipocalin 13).
GN   Name=BC027556; Synonyms=Lcn13;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
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RC   TISSUE=Uterus;
RX   MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA   Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA   Jones S.J., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length human
RT   and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Uterus;
RA   Strausberg R.;
RL   Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=B6D2F1; TISSUE=Epididymis;
RX   PubMed=15363845;
RA   Suzuki K., Lareyre J.J., Sanchez D., Gutierrez G., Araki Y.,
RA   Matusik R.J., Orgebin-Crist M.C.;
RT   "Molecular evolution of epididymal lipocalin genes localized on mouse
RT   chromosome 2.";
RL   Gene 339:49-59(2004).
DR   EMBL; BC027556; AAH27556.1; -.
DR   EMBL; AY360148; AAR11375.1; -.
DR   MGD; MGI:2387617; BC027556.
DR   GO; GO:0005215; F:transporter activity; IEA.
DR   GO; GO:0006810; P:transport; IEA.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PRINTS; PR01175; VNEBNERGLAND.
SQ   SEQUENCE   176 AA;  19996 MW;  1AE75207D6C70B2F CRC64;

  Query Match             30.2%;  Score 236;  DB 2;  Length 176;
  Best Local Similarity   38.4%;  Pred. No. 5.1e-17;
  Matches   53;  Conservative   26;  Mismatches   49;  Indels   10;  Gaps    4;

Qy          1 MKTLFLGV-TLGLAAALSFTLEEE------DITGTWYVKAMVVDKDFPEDRRPRKVSPVK 53
              ||:| | :  ||| | |    :|       | :| || |||| :   |  : |  | ||:
Db          1 MKSLLLTILLLGLVAVLK--AQEAPPDDLVDYSGIWYAKAMVHNGTLPSHKIPSIVFPVR 58

Qy         54 VTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFY 113
              : ||  |:|| |  |      | : | :|:|||||||::|:   |:|::::    : |:||
Db         59 IIALEEGDLETTVVFWNNGHCREFKFVMKKTEEPGKYTAFHNTKVIHVEKTSVNEHYIFY 118

Qy        114 CKDQRRGGLRY-MGKLVG 130
              |: :  |   : ||||:|
Db        119 CEGRHNGTSSFGMGKLMG 136


RESULT 10
VEG1_RAT
ID   VEG1_RAT       STANDARD;      PRT;   177 AA.
AC   P20289;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Von Ebner's gland protein 1 precursor (VEG protein 1).
GN   Name=Vegp1; Synonyms=Vegp;
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Wistar; TISSUE=Lingual salivary gland;
RX   MEDLINE=90136923; PubMed=1689010; DOI=10.1038/343366a0;
RA   Schmale H., Holtgreve-Grez H., Christiansen H.;
RT   "Possible role for salivary gland protein in taste reception indicated
RT   by homology to lipophilic-ligand carrier proteins.";
RL   Nature 343:366-369(1990).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Wistar; TISSUE=Lingual salivary gland;
RX   MEDLINE=94237155; PubMed=7514123;
RA   Kock K., Ahlers C., Schmale H.;
RT   "Structural organization of the genes for rat von Ebner's gland
RT   proteins 1 and 2 reveals their close relationship to lipocalins.";
RL   Eur. J. Biochem. 221:905-916(1994).
CC   -!- FUNCTION: Could play a role in taste reception. Could be necessary
CC       for the concentration and delivery of sapid molecules in the
CC       gustatory system.
CC   -!- SUBUNIT: Homodimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X52016; CAA36263.1; -.
DR   EMBL; X74805; CAA52809.1; -.
DR   PIR; S08161; S08161.
DR   RGD; 619872; Vegp1.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Lipocalin; Multigene family; Signal; Transport.
FT   SIGNAL       1     18       Potential.
FT   CHAIN       19    177       Von Ebner's gland protein 1.
FT   DISULFID    80    172       By similarity.
SQ   SEQUENCE   177 AA;  19725 MW;  CCA36A7F544D6707 CRC64;

  Query Match             29.7%;  Score 232;  DB 1;  Length 177;
  Best Local Similarity   36.4%;  Pred. No. 1.4e-16;
  Matches   52;  Conservative   28;  Mismatches   55;  Indels    8;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAALS-----FTLEEEDITGTWYVKAMVVDKDFPEDR-RPRKVSPVKV 54
              || | |   | | |||       | | :|::||||:||   ||: |: :     |:|:|:
Db          1 MKALLLTFGLSLLAALQAQAFPTTEENQDVSGTWYLKAAAWDKEIPDKKFGSVSVTPMKI 60

Qy         55 TALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYC 114
               | ||||:  || :   || :   :: ||:|| |::|| |::::|:       | |:||
Db         61 KTLEGGNLQVKFTVLIAGRCKEMSTVLEKTDEPAKYTAYSGKQVLYIIPSSVEDHYIFYY 120

Qy        115 KDQRRGGLRYMGKLVGPCRCPHV 137
              : :       : ||||  | | :
Db        121 EGKIHRHHFQIAKLVG--RDPEI 141


RESULT 11
LLPB_MACEU
ID   LLPB_MACEU     STANDARD;      PRT;   174 AA.
AC   Q8SQ30;
DT   28-FEB-2003 (Rel. 41, Created)
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DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Late lactation protein B precursor (LLP-B).
GN   Name=LLPB;
OS   Macropus eugenii (Tammar wallaby).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Metatheria; Diprotodontia; Macropodidae; Macropus.
OX   NCBI_TaxID=9315;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Mammary gland;
RX   MEDLINE=21856506; PubMed=11867236; DOI=10.1016/S0378-1119(01)00883-6;
RA   Trott J.F., Wilson M.J., Hovey R.C., Shaw D.C., Nicholas K.R.;
RT   "Expression of novel lipocalin-like milk protein gene is
RT   developmentally-regulated during lactation in the tammar wallaby,
RT   Macropus eugenii.";
RL   Gene 283:287-297(2002).
CC   -!- FUNCTION: Probably serves a role in the transport of a small
CC       ligand released during the hydrolysis of milk fat.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Mammary gland specific. Secreted in milk.
CC   -!- DEVELOPMENTAL STAGE: Produced during the late phase of lactation.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF319463; AAL85634.1; -.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Lipocalin; Milk; Signal; Transport.
FT   SIGNAL       1     18       Potential.
FT   CHAIN       19    174       Late lactation protein B.
FT   DISULFID    77    169       By similarity.
SQ   SEQUENCE   174 AA;  19875 MW;  61C48B673226EDA4 CRC64;

  Query Match             27.9%;  Score 218.5;  DB 1;  Length 174;
  Best Local Similarity   35.1%;  Pred. No. 3.8e-15;
  Matches   47;  Conservative   28;  Mismatches   56;  Indels    3;  Gaps    1;

Qy          1 MKTLFLGVTLGLAAAL---SFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTAL 57
              || ||| : | | : |     :  ||   ||::|||:| | :| |  :|: :||: || |
Db          1 MKVLFLTIALSLFSILQAQDSSSSEEQFEGTYFVKAIVTDSEFFEKNKPKALSPLTVTHL 60

Qy         58 GGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDDYVFYCKDQ 117
                |:||| ||      | : |:   ||::|| ||   | : : :::    | :: :|: :
Db         61 SNGDLEAKFTTNMNGICEEIKMKFEKTDKPGIFSTNDGSRQVLIEKTSVRDHWILFCEGE 120

Qy        118 RRGGLRYMGKLVGP 131
                |    : ||:||
Db        121 LHGMQVRIAKLLGP 134


RESULT 12
VNS2_MOUSE
ID   VNS2_MOUSE     STANDARD;      PRT;   185 AA.
AC   Q62472;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Vesomeral secretory protein II precursor (VNSP II) (Lipocalin 4).
GN   Name=Lcn4;
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ddY;
RX   MEDLINE=95112792; PubMed=7813422;
RA   Miyawaki A., Matsushita F., Ryo Y., Mikoshiba K.;
RT   "Possible pheromone-carrier function of two lipocalin proteins in the
RT   vomeronasal organ.";
RL   EMBO J. 13:5835-5842(1994).
CC   -!- FUNCTION: Transport of lipophilic molecules, possible pheromone-
CC       carrier.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Specifically expressed in vomeronasal and
CC       posterior glands of the nasal septum, the ducts of which open into
CC       the lumen of the vomeronasal organ.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; D38581; BAA07582.1; -.
DR   PIR; S51803; S51803.
DR   MGD; MGI:102668; Lcn4.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Lipocalin; Pheromone-binding; Signal; Transport.
FT   SIGNAL       1     19       Potential.
FT   CHAIN       20    185       Vesomeral secretory protein II.
FT   DISULFID    80    172       By similarity.
SQ   SEQUENCE   185 AA;  21399 MW;  D93702D4FA5344AB CRC64;

  Query Match             26.2%;  Score 205;  DB 1;  Length 185;
  Best Local Similarity   33.3%;  Pred. No. 1.1e-13;
  Matches   48;  Conservative   22;  Mismatches   52;  Indels   22;  Gaps    3;

Qy          1 MKTLFLGVTLGLAAA-------LSFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVS--- 50
              ||:| | |||     |       | |  ||: ::| |::|| |  :        |:|
Db          1 MKSLLLTVTLSSLVATLQTYDDLPFISEEDKLSGVWFIKATVSQR--------REVEGET 52

Qy         51 ----PVKVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPG 106
                  |:| |    | ||   |   :  ||   | :::|||||::||: |  | |: :||
Db         53 LVAFPIKFTCPEEGTLELRHTLASKGECINVGIRLQRTEEPGQYSAFWGHTLFYIYDLPV 112

Qy        107 TDDYVFYCKDQRRGGLRYMGKLVG 130
                | |: ||:      :   | |:|
Db        113 KDHYIIYCESHPFQKISQFGYLIG 136


RESULT 13
LLP_TRIVU
ID   LLP_TRIVU      STANDARD;      PRT;   176 AA.
AC   Q29144;
DT   15-JUL-1998 (Rel. 36, Created)
DT   15-JUL-1998 (Rel. 36, Last sequence update)
DT   30-MAY-2000 (Rel. 39, Last annotation update)
DE   Late lactation protein precursor (LLP).
OS   Trichosurus vulpecula (Brush-tailed possum).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Metatheria; Diprotodontia; Phalangeridae; Trichosurus.
OX   NCBI_TaxID=9337;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Mammary gland;
RX   MEDLINE=98154412; PubMed=9493361;
RA   Piotte C.P., Hunter A.K., Marshall C.J., Grigor M.R.;
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RT   "Phylogenetic analysis of three lipocalin-like proteins present in the
RT   milk of Trichosurus vulpecula (Phalangeridae, Marsupialia).";
RL   J. Mol. Evol. 46:361-369(1998).
CC   -!- FUNCTION: Probably serves a role in the transport of a small
CC       ligand released during the hydrolysis of milk fat.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Mammary gland. Secreted in milk.
CC   -!- DEVELOPMENTAL STAGE: Produced during the late phase of lactation.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; U34287; AAA93179.1; -.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Lipocalin; Milk; Signal; Transport.
FT   SIGNAL        1     18       By similarity.
FT   CHAIN        19    176       Late lactation protein.
FT   DISULFID     78    171       By similarity.
SQ   SEQUENCE   176 AA;  20598 MW;  325138B2468F017D CRC64;

  Query Match             25.5%;  Score 199.5;  DB 1;  Length 176;
  Best Local Similarity   34.5%;  Pred. No. 4.2e-13;
  Matches   49;  Conservative   24;  Mismatches   52;  Indels   17;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAAL--------SFTLEEEDITGTWYVKAMVVDKDFPEDRRPRKVSPV 52
              || ||  : | | : |         :||  |    ||:||: : |||:|||:  || :||:
Db          1 MKVLFFTIALSLFSILHADDVAFSAFTPSE----GTYYVQVIAVDKEFPEEEIPRDMSPL 56

Qy         53 KVTALGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTD---D 109
               :  |  | :|| ||  ::| | :  |:: || :| | :    |:| |      |
Db         57 TIMYLDDGKMEARFTMKKDDNCEEINIMLEKTADPRKITM--NRRLRYTCAAVRTSKQKH 114

Qy        110 YVFYCKDQRRGGLRYMGKLVGP 131
             ::  |  : :|    | |||||
Db        115 WILVCPREFQGETIRMAKLVGP 136


RESULT 14
Q71RT0
ID   Q71RT0      PRELIMINARY;      PRT;   176 AA.
AC   Q71RT0;
DT   05-JUL-2004 (TrEMBLrel. 27, Created)
DT   05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
DT   05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
DE   Late lactation protein-A.
GN   Name=LLP-A;
OS   Macropus eugenii (Tammar wallaby).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Metatheria; Diprotodontia; Macropodidae; Macropus.
OX   NCBI_TaxID=9315;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Trott J.F., Adams T.E., Wilson M., Nicholas K.R.;
RL   Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF348406; AAQ15117.1; -.
DR   GO; GO:0005215; F:transporter activity; IEA.
DR   GO; GO:0006810; P:transport; IEA.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
DR   Pfam; PF00061; Lipocalin; 1.
DR   PRINTS; PR01175; VNEBNERGLAND.
SQ   SEQUENCE   176 AA;  20638 MW;  399D8D8EDE1F1C8A CRC64;

  Query Match             24.1%;  Score 188.5;  DB 2;  Length 176;
  Best Local Similarity   31.9%;  Pred. No. 6.4e-12;
  Matches   44;  Conservative   31;  Mismatches   54;  Indels    9;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAAL---SFTLEE-EDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTA 56
              |: ||| ::| | : :    |   | :   ||:||: : |||:||||  || :||: :|
Db          1 MRVLFLTISLSLFSIIHADDFAFSEFKPSEGTYYVQVIAVDKEFPEDEIPRDISPLTITY 60

Qy         57 LGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDD---YVFY 113
              |  | :|| ||  ::: | :  : : | :|| | :    | | :: :   | :   ::
Db         61 LNNGKMEAKFTVKKDNNCEEINLTLEKIDEPRKITT--NRHLHHICDTVRTSEEKYWILS 118

Qy        114 CKDQRRGGLRYMGKLVGP 131
              |  : :|      :||||
Db        119 CVREFQGKQIREAELVGP 136


RESULT 15
LLPA_MACEU
ID   LLPA_MACEU     STANDARD;      PRT;   176 AA.
AC   P20462;
DT   01-FEB-1991 (Rel. 17, Created)
DT   01-FEB-1991 (Rel. 17, Last sequence update)
DT   05-JUL-2004 (Rel. 44, Last annotation update)
DE   Late lactation protein A precursor (LLP-A).
GN   Name=LLPA;
OS   Macropus eugenii (Tammar wallaby).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Metatheria; Diprotodontia; Macropodidae; Macropus.
OX   NCBI_TaxID=9315;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=90073674; PubMed=2590207;
RA   Collet C., Joseph R., Nicholas K.R.;
RT   "Molecular cloning and characterization of a novel marsupial milk
RT   protein gene.";
RL   Biochem. Biophys. Res. Commun. 164:1380-1383(1989).
RN   [2]
RP   SEQUENCE OF 19-87 AND 116-131.
RX   MEDLINE=87241271; PubMed=3109381;
RA   Nicholas K.R., Messer M., Elliot C., Maher F., Shaw D.C.;
RT   "A novel whey protein synthesized only in late lactation by the
RT   mammary gland from the tammar (Macropus eugenii).";
RL   Biochem. J. 241:899-904(1987).
RN   [3]
RP   SIMILARITY TO THE LIPOCALIN FAMILY.
RX   MEDLINE=93222225; PubMed=8466952; DOI=10.1016/0005-2760(93)90165-6;
RA   Collet C., Joseph R.;
RT   "A novel member of the lipocalin superfamily: tammar wallaby late-
RT   lactation protein.";
RL   Biochim. Biophys. Acta 1167:219-222(1993).
CC   -!- FUNCTION: Probably serves a role in the transport of a small
CC       ligand released during the hydrolysis of milk fat.
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- TISSUE SPECIFICITY: Mammary gland specific. Secreted in milk.
CC   -!- DEVELOPMENTAL STAGE: Produced during the late phase of lactation.
CC   -!- SIMILARITY: Belongs to the lipocalin family.
CC   ---------------------------------------------------------------------
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CC   ---------------------------------------------------------------------
DR   EMBL; X15213; CAA33283.1; -.
DR   PIR; A28561; A28561.
DR   PIR; A33672; A33672.
DR   InterPro; IPR011038; Calycin.
DR   InterPro; IPR000566; Lipocln_cytFABP.
DR   InterPro; IPR002450; vonEbner_gland.
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DR   Pfam; PF00061; Lipocalin; 1.
DR   PROSITE; PS00213; LIPOCALIN; FALSE_NEG.
KW   Direct protein sequencing; Lipocalin; Milk; Signal; Transport.
FT   SIGNAL        1     18
FT   CHAIN        19    176       Late lactation protein A.
FT   DISULFID     78    171       By similarity.
FT   CONFLICT     59     59       T -> S (in Ref. 2).
FT   CONFLICT    126    126       T -> I (in Ref. 2).
SQ   SEQUENCE   176 AA;  20612 MW;  B327EA4F09DED435 CRC64;

  Query Match             23.8%;  Score 186.5;  DB 1;  Length 176;
  Best Local Similarity   31.9%;  Pred. No. 1e-11;
  Matches   44;  Conservative   31;  Mismatches   54;  Indels    9;  Gaps    4;

Qy          1 MKTLFLGVTLGLAAAL---SFTLEE-EDITGTWYVKAMVVDKDFPEDRRPRKVSPVKVTA 56
              |: ||| ::| | : :    |   | :   ||:||: : |||:|||| || :||: :|
Db          1 MRVLFLTISLSLFSIIHADDFAFSEFKPSEGTYYVQVIAVDKEFPEDEIPRDISPLTITY 60

Qy         57 LGGGNLEATFTFMREDRCIQKKILMRKTEEPGKFSAYGGRKLIYLQELPGTDD---YVFY 113
              |  | :|| ||  ::: | :  : : | :|| | :    | | :: :   | :   ::
Db         61 LNNGKMEAKFTVKKDNNCEEINLTLEKIDEPRKITT--TRHLHHICDTVRTSEEKYWILS 118

Qy        114 CKDQRRGGLRYMGKLVGP 131
              |  : :|      :||||
Db        119 CVREFQGTQIREAELVGP 136

Search completed: June  7, 2005, 14:39:31
Job time : 181 secs
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